168112

DATE: August 8, 2002

TETRA TECH
200 E. RANDOLPH DRIVE
SUITE 4700
CHICAGO, IL 60601

Attn: ERIC MONCHEIN

SITE NAME: Sauget Site H & I

CASE NO	LAB	NO # OF SAMPLES	SDG	MATRIX
30721	Clayton	2	E21M0	Soil

==========

Upon receipt of data, please check each package for completeness and note any missing deliverables below.

Send this form back to Sylvia Griffin, Data Management Coordinator after filling in the blanks below.

Data Received by:_____ Date:_____

PROBLEMS:

Please indicate if data is complete, and note if there are any deliverables missing from the cases noted above.

_____

_____

Received by Data Management Coordinator, CRL for file.
Date:_____

Signature:_____

FROM: U.S. EPA
Region V
Central Regional Laboratory
536 S. Clark, 10th Floor
CHICAGO, IL 60605

Sent By: Eva M. Dixon, Sr. Data Specialist
ESAT

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: _____

SUBJECT: Review of Data
Received for Review on August 1, 2002

FROM: Stephen L. Ostrodka, Chief (SMF-4J)
Superfund Field Services Section

TO: Data User: Tetra Tech

We have reviewed the data for the following case:

SITE NAME: Sauget Site H&I (IL)

CASE NUMBER: 30721 SDG NUMBER: E21M0

Number and Type of Samples: 2 (soil)

Sample Numbers: E21M0 and E21M1

Laboratory: Clayton Hrs. for Review: _____

Following are our findings:

CC: Cecilia Moore
Region 5 TPO
Mail Code: SMF-4J

Case Number : 30721 SDG Number: E21M0
Site Name: Sauget Site H&I (IL) Laboratory: Clayton

Below is a summary of the out-of-control audits and the possible effects on the data for this case:

Two (2) soil samples, numbered E21M0 and E21M1, were collected on July 15, 2002. The lab received the samples on July 17, 2002 in good condition. All samples were analyzed for the full list of organic analytes. All were analyzed according to CLP SOW OLM04.2 5/99.

Reviewed By: Richard Baltrus/IITRI-ESAT
Date: August 5, 2002

Case Number : 30721 **SDG Number: E21M0**
Site Name: Sauget Site H&I (IL) **Laboratory: Clayton**

1. HOLDING TIME

No problems found for this qualification.

2. GC/MS TUNING AND GC INSTRUMENT PERFORMANCE

No problem found for this qualification.

3. CALIBRATION

The following volatile samples are associated with a continuing calibration percent difference (%D) outside primary criteria. Hits are qualified "J" and non-detects are qualified "UJ".

Acetone, 2-Butanone
E21M0, E21M0MS, E21M0MSD, E21M1, VBLKKJ, VHBLKKA

The following semivolatile samples are associated with a continuing calibration percent difference (%D) outside primary criteria. Hits are qualified "J" and non-detects are qualified "UJ".

2,2'-oxybis(1-Chloropropane), Hexachloroethane, Hexachlorobutadiene, 4-Nitrophenol, Atrazine, Di-n-octylphthalate
E21M0, E21M0MS, E21M0MSD, E21M1, E21M1DL, SBLKS1

4. BLANKS

The following volatile sample have analyte concentration below the CRQL and less than or equal to 10 times (10X) the associated method blank concentration. Reported sample concentration have been elevated to the CRQL. Hits are qualified "U" and non-detects are not flagged.

Acetone
VHBLKKA

The following volatile sample have analyte concentration below the CRQL and less than or equal to 5 times (5X) the associated method blank concentration. Reported sample concentration have been elevated to the CRQL. Hits are qualified "U" and non-detects are not flagged.

1,2,4-Trichlorobenzene
VHBLKKA

5. SYSTEM MONITORING COMPOUND AND SURROGATE RECOVERY

The following diluted pesticide samples have surrogate percent recoveries which exceed the upper limit of the criteria window. Hits and non-detects are not qualified due to sample dilutions.

Reviewed By: Richard Baltrus/IITRI-ESAT
Date: August 5, 2002

Case Number : 30721 SDG Number: E21M0
Site Name: Sauget Site H&I (IL) Laboratory: Clayton

E21M0, E21M0DL, E21M0MS, E21M0MSD, E21M1, E21M1DL

The following diluted pesticide samples have surrogate percent recoveries of less than 10%. Hits and non-detects are not qualified due to sample dilutions.

E21M0, E21M0DL, E21M0MS, E21M0MSD

6. MATRIX SPIKE/MATRIX SPIKE DUPLICATE

The following pesticide matrix spike/matrix spike duplicate samples have 0% recovery. The compounds were spiked at a concentration below the level of the final detection limit, therefore, no action was taken.

E21M0MS, E21M0MSD
gamma-BHC (Lindane), Aldrin, Dieldrin, Endrin, 4,4'-DDT

The following pesticide matrix spike/matrix spike duplicate sample have recovery greater than the upper acceptance limit. The presence of Heptachlor in the unspiked sample E21M0 is qualified "J" and non-detects are not affected.

E21M0MS, E21M0MSD
Heptachlor

7. FIELD BLANK AND FIELD DUPLICATE

There is no field blank in this package. Sample E21M1 is a field duplicate of Sample E21M0. Results are not qualified based upon the results of the field blank or field duplicates.

The results for the volatile fraction of the duplicated samples are presented in the following table.

Volatile Analytes	E21M0	E21M1
	µg/Kg	µg/Kg
Acetone	46000 J	34000 J
Benzene	120000 J	520000
Toluene	110000 J	460000
Tetrachloroethene		57000 J
Chlorobenzene	630000	1600000

Case Number : 30721 **SDG Number:** E21M0
Site Name: Sauget Site H&I (IL) **Laboratory:** Clayton

Ethylbenzene		13000 J
1,3-Dichlorobenzene	27000 J	26000 J
1,4-Dichlorobenzene	2000000	330000
1,2-Dichlorobenzene	370000	130000
1,2,4-Trichlorobenzene	320000 J	440000
TICs	1	7

The results for the semivolatile fraction of the duplicated samples are presented in the following table.

Semivolatile Ananlytes	E21M0	E21M1
	µg/Kg	µg/Kg
Benzaldehyde	2300 J	2500 J
Phenol	4100 J	68000
2-Chlorophenol		1700 J
2-Methylphenol	2500 J	1400 J
Acetophenone	1700 J	5500 J
2,4-Dichlorophenol	2900 J	59000
Naphthalene	48000	160000
4-Chloroaniline	2900 J	23000 J
2-Methylnaphthalene	3800 J	6900 J
Hexachlorobutadiene	5100 J	
2,4,6-Trichlorophenol	7900 J	370000
1,1'-Biphenyl	100000	210000
Dimethylphthalate	12000 J	4100 J
Acenaphthene		5000 J
Dibenzofuran	3600 J	9600 J
Fluorene	4100 J	6800 J

Reviewed By: Richard Baltrus/IITRI-ESAT
Date: August 5, 2002

Case Number : 30721 **SDG Number: E21M0**
Site Name: Sauget Site H&I (IL) **Laboratory: Clayton**

Hexachlorobenzene	1800 J	
Pentachlorophenol		51000 J
Phenanthrene	8900 J	20000 J
Anthracene	2400 J	4400 J
Carbazole	4800 J	3700 J
Di-n-butylphthalate	4200 J	2600 J
Fluoranthene	2500 J	3000 J
Pyrene	2200 J	2700 J
Chrysene		2100 J
Benzo (b) fluoranthene	2500 J	
TICs	30	30

The results for the pesticide fraction of the duplicated samples are presented in the following table.

Pesticide analytes	E21M0	E21M1
	µg/Kg	µg/Kg
alpha- BHC	2100	
beta-BHC		96
Heptachlor	14000	
Endosulfan I	1400	
4,4'-DDE		3100
Endosulfan II	4400	1000
4,4-DDD	6700	26000
Methoxychlor		3800
Endosulfan sulfate	17000	
Endrin ketone	14000	
Endrin aldehyde	14000	

Reviewed By: Richard Baltrus/IITRI-ESAT
Date: August 5, 2002

Case Number : 30721 **SDG Number:** E21M0
Site Name: Sauget Site H&I (IL) **Laboratory:** Clayton

Aroclor 1242	970000	
Aroclor 1254	730000	41000
Aroclor 1260	1400000	18000

8. INTERNAL STANDARDS

No problems found for this qualification.

9. COMPOUND IDENTIFICATION

After reviewing the mass spectra and chromatograms it appears that all VOA, SVOA, and Pesticide/PCB compounds were properly identified.

10. COMPOUND QUANTITATION AND REPORTED DETECTION LIMITS

The following volatile samples have analyte concentrations below the quantitation limit (CRQL). All results below the CRQL are qualified "J".

E21M0
Acetone, Benzene, Toluene, 1,3-Dichlorobenzene

E21M0MS
Acetone, 2-Butanone, 1,3-Dichlorobenzene

E21M0MSD
Acetone, 1,3-Dichlorobenzene

E21M1
Acetone, Tetrachloroethene, Ethylbenzene, 1,3-Dichlorobenzene

VBLKKJ
Acetone , 1,2,4-Trichlorobenzene

VHBLKKA
Acetone, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, 1,2,4-Trichlorobenzene

The following semivolatile samples have analyte concentrations below the quantitation limit (CRQL). All results below the CRQL are qualified "J".

E21M0
Benzaldehyde, Phenol, 2-Methylphenol, Acetophenone
2,4-Dichlorophenol, 4-Chloroaniline, Hexachlorobutadiene, 2-Methylnaphthalene,

Case Number : 30721 SDG Number: E21M0
Site Name: Sauget Site H&I (IL) Laboratory: Clayton

2,4,6-Trichlorophenol, Dimethylphthalate, Dibenzofuran, Fluorene
Hexachlorobenzene, Phenanthrene, Anthracene, Carbazole
Di-n-butylphthalate, Fluoranthene, Pyrene, Benzo(b)fluoranthene

E21M0MS
Benzaldehyde, 2-Methylphenol, Acetophenone , N-Nitroso-di-n-propylamine
2,4-Dichlorophenol, 4-Chloroaniline, Hexachlorobutadiene, 2-Methylnaphthalene,
2,4,6-Trichlorophenol, Dimethylphthalate, 4-Nitrophenol, Dibenzofuran
2,4-Dinitrotoluene, Fluorene, Hexachlorobenzene, Phenanthrene
Anthracene, Carbazole, Di-n-butylphthalate, Fluoranthene
Benzo(b)fluoranthene

E21M0MSD
Benzaldehyde, 2-Methylphenol, Acetophenone , 2,4-Dichlorophenol
4-Chloroaniline, Hexachlorobutadiene, 2-Methylnaphthalene, 2,4,6-Trichlorophenol
4-Nitrophenol, Dibenzofuran, Fluorene, Hexachlorobenzene
Pentachlorophenol, Phenanthrene, Anthracene, Carbazole
Di-n-butylphthalate, Fluoranthene, Benzo(b)fluoranthene

E21M1
Benzaldehyde, 2-Chlorophenol, 2-Methylphenol, Acetophenone
4-Chloroaniline, 2-Methylnaphthalene, Dimethylphthalate, Acenaphthene
Dibenzofuran, Fluorene, Pentachlorophenol, Phenanthrene
Anthracene, Carbazole, Di-n-butylphthalate, Fluoranthene
Pyrene, Chrysene

E21M1DL
Acetophenone , 4-Chloroaniline, 2-Methylnaphthalene, 2,4,6-Trichlorophenol
Dimethylphthalate, Acenaphthene, Dibenzofuran, Fluorene
Phenanthrene, Anthracene, Carbazole, Fluoranthene
Pyrene

The following pesticide samples have analytes for which the percent difference between column results exceeds primary criteria. Hit are qualified "J".

E21M0
alpha-BHC, Heptachlor, Endosulfan I, Endosulfan II
4,4'-DDD, Endosulfan sulfate, Endrin ketone, Endrin aldehyde
Aroclor-1242, Aroclor-1254

E21M0DL
alpha-BHC, Heptachlor, Endosulfan I, Endosulfan II
4,4'-DDD, Methoxychlor, Aroclor-1242, Aroclor-1254
Aroclor-1260

Reviewed By: Richard Baltrus/IITRI-ESAT
Date: August 5, 2002

Case Number : 30721 SDG Number: E21M0
Site Name: Sauget Site H&I (IL) Laboratory: Clayton

E21M0MS
alpha-BHC, Heptachlor, Endosulfan I, Endosulfan II
4,4'-DDD, Endosulfan sulfate, Endrin ketone, Aroclor-1242
Aroclor-1254, Aroclor-1260

E21M0MSD
Heptachlor, Endosulfan I, Endosulfan II, 4,4'-DDD
Endosulfan sulfate, Endrin ketone, Aroclor-1242, Aroclor-1254
Aroclor-1260

E21M1
beta-BHC, Endosulfan II, 4,4'-DDD, Methoxychlor, Aroclor-1254, Aroclor-1260

E21M1DL
Endosulfan II, Aroclor-1254, Aroclor-1260

11. SYSTEM PERFORMANCE

GC/MS baseline indicated acceptable performance. The GC baseline for the pesticide analysis was acceptable.

12. ADDITIONAL INFORMATION

The following semivolatile sample have analyte that exceeded the instrument's calibration range. For any analyte that exceeded the calibration range the results from the diluted sample should be considered the final concentration.

E21M1
1,1'-Biphenyl

The following pesticide samples have analyte that exceeded the instrument's calibration range. For any analyte that exceeded the calibration range the results from the diluted sample should be considered the final concentration.

E21M0
Heptachlor, Endosulfan sulfate, Aroclor 1242, Aroclor 1254, Aroclor 1260

E21M1
4,4'-DDD, Aroclor 1254, Aroclor 1260

The volatile sample E21M1 has a target compound, 1,2,4- Trichlorobenzene, reported in the TIC report.

Reviewed By: Richard Baltrus/IITRI-ESAT
Date: August 5, 2002

Case Number : 30721 **SDG Number:** E21M0
Site Name: Sauget Site H&I (IL) **Laboratory:** Clayton

The semivolatile sample E21M1 has pesticide target compound 4,4'-DDD listed as a TIC. Sample E21M1 has two compounds 1,3,5-Trichloro benzene and 1,2,3,4-Tetrachloro benzene listed with two different RT each.

The semivolatile sample E21M0 list 1,14-Biphenyl's which are isomers reported in the pesticide fractions..

Reviewed By: Richard Baltrus/IITRI-ESAT
Date: August 5, 2002

CADRE Data Qualifier Sheet

Qualifiers	Data Qualifier Definitions
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J	The anlayte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.
UJ	The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the action limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
N	The analysis indicates the present of an analyte for which there is presumptive evidence to make a tentative identification.
NJ	The analysis indicates the present of an analyte for which there is presumptive evidence to make a tentative identification and the associated numerical value represents its approximate concentration.
R	The data are unusable. (The compound may or may not be present)

Volatile Analysis Data - VBLKKJ
Tentatively Identified Compounds

CASE NO: 30721 LABORATORY: CLAYTON GROUP SERVICES
SDG NO: E21M0

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
	UNKNOWN (7.12)	7.12	750.000	J

FILE NAME: E21M0.SDG DATE: 08/01/2002 TIME: 10:44 CADRE99 PAGE: 1

Volatile Analysis Data - E21M0
Tentatively Identified Compounds

CASE NO: 30721 LABORATORY: CLAYTON GROUP SERVICES
SDG NO: E21M0

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
000087-61-6	BENZENE, 1,2,3-TRICHLORO-	21.63	260000.000	NJ

FILE NAME: E21M0.SDG DATE: 08/01/2002 TIME: 10:44 CADRE99 PAGE: 2

Volatile Analysis Data - E21M1
Tentatively Identified Compounds

CASE NO: 30721 LABORATORY: CLAYTON GROUP SERVICES
SDG NO: E21M0

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
	UNKNOWN (4.74)	4.74	64000.000	J
000000-00-0	TRICYCLO(2.2.1.0(2,6))HEPTANE, 2,3,3-TRI	15.44	120000.000	NJ
000080-56-8	.ALPHA.-PINENE, (-)-	15.62	100000.000	NJ
000079-92-5	CAMPHENE	16.08	520000.000	NJ
000527-84-4	BENZENE, 1-METHYL-2-(1-METHYLETHYL)-	17.56	400000.000	NJ
000120-82-1	BENZENE, 1,2,4-TRICHLORO-	21.62	190000.000	NJ
000634-66-2	BENZENE, 1,2,3,4-TETRACHLORO-	23.48	140000.000	NJ

FILE NAME: E21M0.SDG DATE: 08/01/2002 TIME: 10:44 CADRE99 PAGE: 3

Volatile Analysis Data - VHBLKKA
Tentatively Identified Compounds

CASE NO: 30721 LABORATORY: CLAYTON GROUP SERVICES
SDG NO: E21M0

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
	UNKNOWN (4.74)	4.74	650.000	J

FILE NAME: E21M0.SDG DATE: 08/01/2002 TIME: 10:44 CADRE99 PAGE: 4

Semivolatile Analysis Data - E21M1
Tentatively Identified Compounds

CASE NO: 30721 LABORATORY: CLAYTON GROUP SERVICES
SDG NO: E21M0

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
000079-92-5	CAMPHENE	6.05	19000.000	NJ
000099-87-6	BENZENE, 1-METHYL-4-(1-METHYLETHYL)-	6.94	29000.000	NJ
000124-76-5	BICYCLO(2.2.1)HEPTAN-2-OL, 1,7,7-TRIMETH	8.97	18000.000	NJ
000106-48-9	PHENOL, 4-CHLORO-	9.29	18000.000	NJ
000108-70-3	BENZENE, 1,3,5-TRICHLORO- (9.36)	9.36	280000.000	NJ
000108-70-3	BENZENE, 1,3,5-TRICHLORO- (9.97)	9.97	60000.000	NJ
000634-66-2	BENZENE, 1,2,3,4-TETRACHLORO- (11.61)	11.61	210000.000	NJ
	UNKNOWN (11.69)	11.69	15000.000	J
000634-66-2	BENZENE, 1,2,3,4-TETRACHLORO- (12.25)	12.25	900000.000	NJ
000101-81-5	BENZENE, 1,14-METHYLENEBIS-	12.35	410000.000	NJ
000000-00-0	M-CHLORO-N,N-DIETHYLANILINE	12.74	82000.000	NJ
	UNKNOWN (12.89)	12.89	68000.000	J
000643-93-6	1,14-BIPHENYL, 3-METHYL-	13.30	160000.000	NJ
	UNKNOWN (14.06)	14.06	22000.000	J
	UNKNOWN (14.48)	14.48	16000.000	J
	UNKNOWN (14.55)	14.55	28000.000	J
	UNKNOWN (14.97)	14.97	18000.000	J
000062-44-2	PHENACETIN	15.17	14000.000	NJ
000120-51-4	BENZYL BENZOATE	15.81	790000.000	NJ
000259-79-0	BIPHENYLENE	16.76	88000.000	NJ
000120-32-1	PHENOL, 4-CHLORO-2-(PHENYLMETHYL)-	16.83	53000.000	NJ
	UNKNOWN (17.01)	17.01	150000.000	J
	UNKNOWN (17.15)	17.15	400000.000	J
	UNKNOWN (17.49)	17.49	1000000.000	J
010544-50-0	SULFUR, MOL. (S8)	17.76	3500000.000	NJ
025429-29-2	1,14-BIPHENYL, PENTACHLORO-	18.16	50000.000	NJ
000072-54-8	P,P4-DDD	19.34	17000.000	NJ
000115-86-6	PHOSPHORIC ACID, TRIPHENYL ESTER	20.00	160000.000	NJ
	UNKNOWN (21.37)	21.37	35000.000	J
	UNKNOWN (21.44)	21.44	33000.000	J

Semivolatile Analysis Data - E21M0
Tentatively Identified Compounds

CASE NO: 30721 LABORATORY: CLAYTON GROUP SERVICES
SDG NO: E21M0

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
000634-90-2	BENZENE, 1,2,3,5-TETRACHLORO-	11.61	87000.000	NJ
000634-66-2	BENZENE, 1,2,3,4-TETRACHLORO-	12.25	310000.000	NJ
000101-81-5	BENZENE, 1,14-METHYLENEBIS-	12.35	100000.000	NJ
000120-51-4	BENZYL BENZOATE	15.80	130000.000	NJ
032598-12-2	1,14-BIPHENYL, 2,4,44,6-TETRACHLORO-	18.14	130000.000	NJ
038380-03-9	1,14-BIPHENYL, 2,3,34,44,6-PENTACHLORO-	18.43	150000.000	NJ
031508-00-6	1,14-BIPHENYL, 2,34,4,44,5-PENTACHLORO-	18.96	190000.000	NJ
026601-64-9	1,14-BIPHENYL, HEXACHLORO- (19.28)	19.28	400000.000	NJ
035065-28-2	1,14-BIPHENYL, 2,24,3,4,44,54-HEXACHLORO	19.46	89000.000	NJ
041411-62-5	1,14-BIPHENYL, 2,3,34,4,5,6-HEXACHLORO-	19.56	320000.000	NJ
026601-64-9	1,14-BIPHENYL, HEXACHLORO- (19.66)	19.66	230000.000	NJ
052712-04-6	1,14-BIPHENYL, 2,24,3,4,5,54-HEXACHLORO-	19.73	88000.000	NJ
052663-72-6	1,14-BIPHENYL, 2,34,4,44,5,54-HEXACHLORO (19.97)	19.97	510000.000	NJ
060145-23-5	1,14-BIPHENYL, 2,24,3,4,44,5,64-HEPTACHL (20.15)	20.15	120000.000	NJ
052663-69-1	1,14-BIPHENYL, 2,24,3,4,44,54,6-HEPTACHL	20.24	78000.000	NJ
026601-64-9	1,14-BIPHENYL, HEXACHLORO- (20.39)	20.39	140000.000	NJ
052663-67-9	1,14-BIPHENYL, 2,24,3,34,5,54,6-HEPTACHL	20.54	130000.000	NJ
052663-72-6	1,14-BIPHENYL, 2,34,4,44,5,54-HEXACHLORO (20.71)	20.71	670000.000	NJ
038411-22-2	1,14-BIPHENYL, 2,24,3,34,6,64-HEXACHLORO	20.81	240000.000	NJ
052663-65-7	1,14-BIPHENYL, 2,24,3,34,4,6,64-HEPTACHL	20.95	1300000.000	NJ
	UNKNOWN (21.44)	21.44	1300000.000	J
060145-23-5	1,14-BIPHENYL, 2,24,3,4,44,5,64-HEPTACHL (21.52)	21.52	950000.000	NJ
052663-75-9	1,14-BIPHENYL, 2,24,3,34,4,5,54,64-OCTAC	21.62	200000.000	NJ
	UNKNOWN (21.68)	21.68	350000.000	J
002136-99-4	1,14-BIPHENYL, 2,24,3,34,5,54,6,64-OCTAC	21.74	270000.000	NJ
	UNKNOWN (21.88)	21.88	140000.000	J
074472-51-8	1,14-BIPHENYL, 2,3,34,4,5,54,6-HEPTACHLO	22.01	81000.000	NJ
	UNKNOWN (22.33)	22.33	180000.000	J
052663-78-2	1,14-BIPHENYL, 2,24,3,34,4,44,5,6-OCTACH	22.40	110000.000	NJ
	UNKNOWN (22.77)	22.77	910000.000	J

Semivolatile Analysis Data - E21M1DL
Tentatively Identified Compounds

CASE NO: 30721 LABORATORY: CLAYTON GROUP SERVICES
SDG NO: E21M0

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
029548-02-5	1,3,6-HEPTATRIENE, 2,5,5-TRIMETHYL-	6.05	27000.000	NJ
000527-84-4	BENZENE, 1-METHYL-2-(1-METHYLETHYL)-	6.94	39000.000	NJ
	UNKNOWN (8.99)	8.99	17000.000	J
000106-48-9	PHENOL, 4-CHLORO-	9.29	17000.000	NJ
000087-61-6	BENZENE, 1,2,3-TRICHLORO-	9.97	58000.000	NJ
000634-66-2	BENZENE, 1,2,3,4-TETRACHLORO-	11.61	81000.000	NJ
000634-90-2	BENZENE, 1,2,3,5-TETRACHLORO-	12.23	320000.000	NJ
000101-81-5	BENZENE, 1,14-METHYLENEBIS-	12.35	150000.000	NJ
000000-00-0	M-CHLORO-N,N-DIETHYLANILINE	12.74	32000.000	NJ
	UNKNOWN (12.89)	12.89	45000.000	J
000644-08-6	1,14-BIPHENYL, 4-METHYL-	13.30	97000.000	NJ
	UNKNOWN (14.55)	14.55	18000.000	J
	UNKNOWN (14.97)	14.97	25000.000	J
000062-44-2	PHENACETIN	15.17	17000.000	NJ
000120-51-4	BENZYL BENZOATE	15.80	950000.000	NJ
010463-10-2	BENZENE, PENTACHLOROETHOXY-	16.10	11000.000	NJ
	UNKNOWN (17)	17.00	16000.000	J
	UNKNOWN (17.13)	17.13	280000.000	J
000090-47-1	9H-XANTHEN-9-ONE	17.47	74000.000	NJ
	UNKNOWN (17.54)	17.54	10000.000	J
025429-29-2	1,14-BIPHENYL, PENTACHLORO-	19.26	14000.000	NJ
000072-54-8	P,P4-DDD	19.34	17000.000	NJ
000115-86-6	PHOSPHORIC ACID, TRIPHENYL ESTER	20.00	150000.000	NJ
	UNKNOWN (20.93)	20.93	22000.000	J
	UNKNOWN (21.37)	21.37	36000.000	J
	UNKNOWN (21.44)	21.44	34000.000	J

Case #: 30721 SDG : E21M0

Site : SAUGET SITES H & I Number of Soil Samples : 2

Lab. : CLAYTN Number of Water Samples : 0

Reviewer :

Date :

Sample Number :	E21M0		E21M0MS		E21M0MSD		E21M1		VBLKKJ	
Sampling Location :	H/WS-02-07		H/WS-02-07		H/WS-02-07		H/WS-02-08			
Matrix :	Soil		Soil		Soil		Soil		Soil	
Units :	ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg	
Date Sampled :	07/15/2002		07/15/2002		07/15/2002		07/15/2002			
Time Sampled :	15:32		15:32		15:32		15:32			
%Moisture :	N/A		N/A		N/A		N/A		N/A	
pH :										
Dilution Factor :	1.0		1.0		1.0		1.0		1.0	
Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Dichlorodifluoromethane	**250000**	**U**	**250000**	**U**	**250000**	**U**	**130000**	**U**	**1300**	**U**
Chloromethane	250000	U	250000	U	250000	U	130000	U	1300	U
Vinyl Chloride	**250000**	**U**	**250000**	**U**	**250000**	**U**	**130000**	**U**	**1300**	**U**
Bromomethane	250000	U	250000	U	250000	U	130000	U	1300	U
Chloroethane	**250000**	**U**	**250000**	**U**	**250000**	**U**	**130000**	**U**	**1300**	**U**
Trichlorofluoromethane	250000	U	250000	U	250000	U	130000	U	1300	U
1,1-Dichloroethene	**250000**	**U**	**1400000**		**1300000**		**130000**	**U**	**1300**	**U**
1,1,2-Trichloro-1,2,2-trifluoroethane	250000	U	250000	U	250000	U	130000	U	1300	U
Acetone	**46000**	**J**	**81000**	**J**	**71000**	**J**	**34000**	**J**	**1300**	**J**
Carbon Disulfide	250000	U	250000	U	250000	U	130000	U	1300	U
Methyl Acetate	**250000**	**U**	**250000**	**U**	**250000**	**U**	**130000**	**U**	**1300**	**U**
Methylene Chloride	250000	U	250000	U	250000	U	130000	U	1300	U
trans-1,2-Dichloroethene	**250000**	**U**	**250000**	**U**	**250000**	**U**	**130000**	**U**	**1300**	**U**
Methyl tert-Butyl Ether	250000	U	250000	U	250000	U	130000	U	1300	U
1,1-Dichloroethane	**250000**	**U**	**250000**	**U**	**250000**	**U**	**130000**	**U**	**1300**	**U**
cis-1,2-Dichloroethene	250000	U	250000	U	250000	U	130000	U	1300	U
2-Butanone	**250000**	**UJ**	**30000**	**J**	**250000**	**UJ**	**130000**	**UJ**	**1300**	**UJ**
Chloroform	250000	U	250000	U	250000	U	130000	U	1300	U
1,1,1-Trichloroethane	**250000**	**U**	**250000**	**U**	**250000**	**U**	**130000**	**U**	**1300**	**U**
Cyclohexane	250000	U	250000	U	250000	U	130000	U	1300	U
Carbon Tetrachloride	**250000**	**U**	**250000**	**U**	**250000**	**U**	**130000**	**U**	**1300**	**U**
Benzene	120000	J	1600000		1400000		520000		1300	U
1,2-Dichloroethane	**250000**	**U**	**250000**	**U**	**250000**	**U**	**130000**	**U**	**1300**	**U**
Trichloroethene	250000	U	1400000		1200000		130000	U	1300	U
Methylcyclohexane	**250000**	**U**	**250000**	**U**	**250000**	**U**	**130000**	**U**	**1300**	**U**
1,2-Dichloropropane	250000	U	250000	U	250000	U	130000	U	1300	U
Bromodichloromethane	**250000**	**U**	**250000**	**U**	**250000**	**U**	**130000**	**U**	**1300**	**U**
cis-1,3-Dichloropropene	250000	U	250000	U	250000	U	130000	U	1300	U
4-Methyl-2-pentanone	**250000**	**U**	**250000**	**U**	**250000**	**U**	**130000**	**U**	**1300**	**U**
Toluene	110000	J	1500000		1500000		460000		1300	U
trans-1,3-Dichloropropene	**250000**	**U**	**250000**	**U**	**250000**	**U**	**130000**	**U**	**1300**	**U**
1,1,2-Trichloroethane	250000	U	250000	U	250000	U	130000	U	1300	U
Tetrachloroethene	**250000**	**U**	**250000**	**U**	**250000**	**U**	**57000**		**1300**	**U**

Case # 30721
SDG : E21M0
Site : SAUGET SITES H & I
Lab. : CLAYTN
Reviewer :
Date :

Sample Number :	E21M0		E21M0MS		E21M0MSD		E21M1		VBLKKJ	
Sampling Location :	H/WS-02-07		H/WS-02-07		H/WS-02-07		H/WS-02-08			
Matrix :	Soil		Soil		Soil		Soil		Soil	
Units :	ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg	
Date Sampled :	07/15/2002		07/15/2002		07/15/2002		07/15/2002			
Time Sampled :	15:32		15:32		15:32		15:32			
%Moisture :	N/A		N/A		N/A		N/A		N/A	
pH :										
Dilution Factor :	1.0		1.0		1.0		1.0		1.0	
Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
2-Hexanone	250000	U	250000	U	250000	U	130000	U	1300	U
Dibromochloromethane	250000	U	250000	U	250000	U	130000	U	1300	U
1,2-Dibromoethane	250000	U	250000	U	250000	U	250000	U	1300	U
Chlorobenzene	630000		2100000		2000000		1600000		1300	U
Ethylbenzene	250000	U	250000	U	250000	U	13000		1300	U
Xylenes (total)	250000	U	250000	U	250000	U	130000	U	1300	U
Styrene	250000	U	250000	U	250000	U	130000	U	1300	U
Bromoform	250000	U	250000	U	250000	U	130000	U	1300	U
Isopropylbenzene	250000	U	250000	U	250000	U	130000	U	1300	U
1,1,2,2-Tetrachloroethane	250000	U	250000	U	250000	U	130000	U	1300	U
1,3-Dichlorobenzene	27000	J	63000	J	29000	J	26000	J	1300	U
1,4-Dichlorobenzene	2000000		1800000		2000000		330000		1300	U
1,2-Dichlorobenzene	370000		250000		380000		130000		1300	U
1,2-Dibromo-3-chloropropane	250000	U	250000	U	250000	U	130000	U	1300	U
1,2,4-Trichlorobenzene	320000		320000		310000		440000		270	J

Case #: 30721 SDG : E21M0
Site : SAUGET SITES H & I
Lab. : CLAYTN
Reviewer :
Date :

Sample Number :	VHBLKKA									
Sampling Location :										
Matrix :	Soil									
Units :	ug/Kg									
Date Sampled :										
Time Sampled :										
%Moisture :	N/A									
pH :										
Dilution Factor :	1.0									
Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Dichlorodifluoromethane	1300	U								
Chloromethane	1300	U								
Vinyl Chloride	1300	U								
Bromomethane	1300	U								
Chloroethane	1300	U								
Trichlorofluoromethane	1300	U								
1,1-Dichloroethene	1300	U								
1,1,2-Trichloro-1,2,2-trifluoroethane	1300	U								
Acetone	1300	UJ								
Carbon Disulfide	1300	U								
Methyl Acetate	1300	U								
Methylene Chloride	1300	U								
trans-1,2-Dichloroethene	1300	U								
Methyl tert-Butyl Ether	1300	U								
1,1-Dichloroethane	1300	U								
cis-1,2-Dichloroethene	1300	U								
2-Butanone	1300	UJ								
Chloroform	1300	U								
1,1,1-Trichloroethane	1300	U								
Cyclohexane	1300	U								
Carbon Tetrachloride	1300	U								
Benzene	1300	U								
1,2-Dichloroethane	1300	U								
Trichloroethene	1300	U								
Methylcyclohexane	1300	U								
1,2-Dichloropropane	1300	U								
Bromodichloromethane	1300	U								
cis-1,3-Dichloropropene	1300	U								
4-Methyl-2-pentanone	1300	U								
Toluene	1300	U								
trans-1,3-Dichloropropene	1300	U								
1,1,2-Trichloroethane	1300	U								
Tetrachloroethene	1300	U								

Case #: 30721 SDG : E21M0
Site : SAUGET SITES H & I
Lab : CLAYTN
Reviewer :
Date :

Sample Number :	VHBLKKA									
Sampling Location :										
Matrix	Soil									
Units :	ug/Kg									
Date Sampled :										
Time Sampled :										
%Moisture :	N/A									
pH :										
Dilution Factor :	1.0									
Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
2-Hexanone	**1300**	**U**								
Dibromochloromethane	1300	U								
1,2-Dibromoethane	**1300**	**U**								
Chlorobenzene	1300	U								
Ethylbenzene	**1300**	**U**								
Xylenes (total)	1300	U								
Styrene	**1300**	**U**								
Bromoform	1300	U								
Isopropylbenzene	**1300**	**U**								
1,1,2,2-Tetrachloroethane	1300	U								
1,3-Dichlorobenzene	**540**	**J**								
1,4-Dichlorobenzene	250	J								
1,2-Dichlorobenzene	**1300**	**U**								
1,2-Dibromo-3-chloropropane	1300	U								
1,2,4-Trichlorobenzene	**1300**	**U**								

Case #: 30721
SDG : E21M0
Site : SAUGET SITES H & I
Number of Soil Samples : 2
Lab : CLAYTN
Number of Water Samples : 0
Reviewer :
Date :

Sample Number :	E21M0		E21M0MS		E21M0MSD		E21M1		E21M1DL	
Sampling Location :	HWS-02-07		HWS-02-07		HWS-02-07		HWS-02-08		HWS-02-08	
Matrix :	Soil		Soil		Soil		Soil		Soil	
Units :	ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg	
Date Sampled :	07/15/2002		07/15/2002		07/15/2002		07/15/2002		07/15/2002	
Time Sampled :	15:32		15:32		15:32		15:32		15:32	
%Moisture :	0		0		0		0		0	
pH :	7.6		7.6		7.6		0.0		0.0	
Dilution Factor :	5.0		5.0		5.0		5.0		10.0	
Semivolatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Benzaldehyde	2300	J	3000	J	4300	J	2500	J	50000	U
Phenol	4100	J	41000		48000		68000		66000	
bis-(2-Chloroethyl) ether	25000	U	25000	U	25000	U	25000	U	50000	U
2-Chlorophenol	25000	U	34000		42000		1700	J	50000	U
2-Methylphenol	2500	J	2400	J	2600	J	1400	J	50000	U
2,2'-oxybis(1-Chloropropane)	25000	UJ	25000	UJ	25000	UJ	25000	UJ	50000	UJ
Acetophenone	1700	J	2100	J	2100	J	5500	J	5400	J
4-Methylphenol	25000	U	25000	U	25000	U	25000	U	50000	U
N-Nitroso-di-n-propylamine	25000	U	24000	J	29000		25000	U	50000	U
Hexachloroethane	25000	UJ	25000	UJ	25000	UJ	25000	UJ	50000	UJ
Nitrobenzene	25000	U	25000	U	25000	U	25000	U	50000	U
Isophorone	25000	U	25000	U	25000	U	25000	U	50000	U
2-Nitrophenol	25000	U	25000	U	25000	U	25000	U	50000	U
2,4-Dimethylphenol	25000	U	25000	U	25000	U	25000	U	50000	U
bis(2-Chloroethoxy)methane	25000	U	25000	U	25000	U	25000	U	50000	U
2,4-Dichlorophenol	2900	J	5600	J	5200	J	59000		53000	
Naphthalene	48000		55000		55000		160000		150000	
4-Chloroaniline	2900	J	4500	J	3100	J	23000	J	21000	J
Hexachlorobutadiene	5100	J	3000	J	2800	J	25000	UJ	50000	UJ
Caprolactam	25000	U	25000	U	25000	U	25000	U	50000	U
4-Chloro-3-methylphenol	25000	U	39000		47000		25000	U	50000	U
2-Methylnaphthalene	3800	J	4200	J	4900	J	6900	J	6400	J
Hexachlorocyclopentadiene	25000	U	25000	U	25000	U	25000	U	50000	U
2,4,6-Trichlorophenol	7900	J	14000	J	11000	J	37000		33000	J
2,4,5-Trichlorophenol	62000	U	62000	U	62000	U	62000	U	120000	U
1,1'-Biphenyl	100000		140000		140000		210000		210000	
2-Chloronaphthalene	25000	U	25000	U	25000	U	25000	U	50000	U
2-Nitroaniline	62000	U	62000	U	62000	U	62000	U	120000	U
Dimethylphthalate	12000	J	11000	J	91000		4100	J	4100	J
2,6-Dinitrotoluene	25000	U	25000	U	25000	U	25000	U	50000	U
Acenaphthylene	25000	U	25000	U	25000	U	25000	U	50000	U
3-Nitroaniline	62000	U	62000	U	62000	U	62000	U	120000	U
Acenaphthene	25000	U	27000		31000		5000	J	5100	J

Case #: 30721 SDG : E21M0
Site : SAUGET SITES H & I
Lab. : CLAYTN
Reviewer :
Date :

Sample Number :	E21M0		E21M0MS		E21M0MSD		E21M1		E21M1DL	
Sampling Location :	H/WS-02-07		H/WS-02-07		H/WS-02-07		H/WS-02-08		H/WS-02-08	
Matrix :	Soil		Soil		Soil		Soil		Soil	
Units :	ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg	
Date Sampled :	07/15/2002		07/15/2002		07/15/2002		07/15/2002		07/15/2002	
Time Sampled :	15:32		15:32		15:32		15:32		15:32	
%Moisture :	0		0		0		0		0	
pH :	7.6		7.6		7.6		0.0		0.0	
Dilution Factor :	5.0		5.0		5.0		5.0		10.0	
Semivolatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
2,4-Dinitrophenol	**62000**	**U**	**62000**	**U**	**62000**	**U**	**62000**	**U**	**120000**	**U**
4-Nitrophenol	62000	UJ	26000	J	28000	J	62000	UJ	120000	UJ
Dibenzofuran	**3600**	**J**	**5000**	**J**	**6800**	**J**	**9600**	**J**	**11000**	**J**
2,4-Dinitrotoluene	25000	U	24000	J	27000		25000	U	50000	U
Diethylphthalate	**25000**	**U**	**25000**	**U**	**25000**	**U**	**25000**	**U**	**50000**	**U**
Fluorene	4100	J	5900	J	4500	J	6800	J	6600	J
4-Chlorophenyl-phenyl ether	**25000**	**U**	**25000**	**U**	**25000**	**U**	**25000**	**U**	**50000**	**U**
4-Nitroaniline	62000	U	62000	U	62000	U	62000	U	120000	U
4,6-Dinitro-2-methylphenol	**62000**	**U**	**62000**	**U**	**62000**	**U**	**62000**	**U**	**120000**	**U**
N-Nitrosodiphenylamine	25000	U	25000	U	25000	U	25000	U	50000	U
4-Bromophenyl-phenylether	**25000**	**U**	**25000**	**U**	**25000**	**U**	**25000**	**U**	**50000**	**U**
Hexachlorobenzene	1800	J	2000	J	1500	J	25000	U	50000	U
Atrazine	**25000**	**UJ**	**25000**	**UJ**	**25000**	**UJ**	**25000**	**UJ**	**50000**	**UJ**
Pentachlorophenol	62000	U	67000		56000	J	51000	J	120000	U
Phenanthrene	**8900**	**J**	**11000**	**J**	**15000**	**J**	**20000**	**J**	**19000**	**J**
Anthracene	2400	J	3100	J	3400	J	4400	J	4000	J
Carbazole	**4800**	**J**	**5200**	**J**	**5200**	**J**	**3700**	**J**	**3200**	**J**
Di-n-butylphthalate	4200	J	3400	J	4900	J	2600	J	50000	U
Fluoranthene	**2500**	**J**	**2700**	**J**	**3100**	**J**	**3000**	**J**	**3000**	**J**
Pyrene	2200	J	30000		36000		2700	J	2600	J
Butylbenzylphthalate	**25000**	**U**	**25000**	**U**	**25000**	**U**	**25000**	**U**	**50000**	**U**
3,3'-Dichlorobenzidine	25000	U	25000	U	25000	U	25000	U	50000	U
Benzo(a)anthracene	**25000**	**U**	**25000**	**U**	**25000**	**U**	**25000**	**U**	**50000**	**U**
Chrysene	25000	U	25000	U	25000	U	2100	J	50000	U
bis(2-Ethylhexyl)phthalate	**25000**	**U**	**25000**	**U**	**25000**	**U**	**25000**	**U**	**50000**	**U**
Di-n-octylphthalate	25000	UJ	25000	UJ	25000	UJ	25000	UJ	50000	UJ
Benzo(b)fluoranthene	**2500**	**J**	**1800**	**J**	**1300**	**J**	**25000**	**U**	**50000**	**U**
Benzo(k)fluoranthene	25000	U	25000	U	25000	U	25000	U	50000	U
Benzo(a)pyrene	**25000**	**U**	**25000**	**U**	**25000**	**U**	**25000**	**U**	**50000**	**U**
Indeno(1,2,3-cd)pyrene	25000	U	25000	U	25000	U	25000	U	50000	U
Dibenzo(a,h)anthracene	**25000**	**U**	**25000**	**U**	**25000**	**U**	**25000**	**U**	**50000**	**U**
Benzo(g,h,i)perylene	25000	U	25000	U	25000	U	25000	U	50000	U

Case #: 30721 SDG : E21M0
Site : SAUGET SITES H & I
Lab. : CLAYTN
Reviewer :
Date :

Sample Number :	SBLKS1									
Sampling Location :										
Matrix :	Soil									
Units :	ug/Kg									
Date Sampled :										
Time Sampled :										
%Moisture :	N/A									
pH :	6.4									
Dilution Factor :	1.0									
Semivolatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Benzaldehyde	5000	U								
Phenol	5000	U								
bis-(2-Chloroethyl) ether	5000	U								
2-Chlorophenol	5000	U								
2-Methylphenol	5000	U								
2,2'-oxybis(1-Chloropropane)	5000	UJ								
Acetophenone	5000	U								
4-Methylphenol	5000	U								
N-Nitroso-di-n-propylamine	5000	U								
Hexachloroethane	5000	UJ								
Nitrobenzene	5000	U								
Isophorone	5000	U								
2-Nitrophenol	5000	U								
2,4-Dimethylphenol	5000	U								
bis(2-Chloroethoxy)methane	5000	U								
2,4-Dichlorophenol	5000	U								
Naphthalene	5000	U								
4-Chloroaniline	5000	U								
Hexachlorobutadiene	5000	UJ								
Caprolactam	5000	U								
4-Chloro-3-methylphenol	5000	U								
2-Methylnaphthalene	5000	U								
Hexachlorocyclopentadiene	5000	U								
2,4,6-Trichlorophenol	5000	U								
2,4,5-Trichlorophenol	12000	U								
1,1'-Biphenyl	5000	U								
2-Chloronaphthalene	5000	U								
2-Nitroaniline	12000	U								
Dimethylphthalate	5000	U								
2,6-Dinitrotoluene	5000	U								
Acenaphthylene	5000	U								
3-Nitroaniline	12000	U								
Acenaphthene	5000	U								

Case #: 30721 SDG : E21M0
Site : SAUGET SITES H & I
Lab : CLAYTN
Reviewer :
Date :

Sample Number :	SBLKS1									
Sampling Location :										
Matrix :	Soil									
Units	ug/Kg									
Date Sampled :										
Time Sampled :										
%Moisture :	N/A									
pH :	6.4									
Dilution Factor :	1.0									
Semivolatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
2,4-Dinitrophenol	**12000**	**U**								
4-Nitrophenol	12000	UJ								
Dibenzofuran	**5000**	**U**								
2,4-Dinitrotoluene	5000	U								
Diethylphthalate	**5000**	**U**								
Fluorene	5000	U								
4-Chlorophenyl-phenyl ether	**5000**	**U**								
4-Nitroaniline	12000	U								
4,6-Dinitro-2-methylphenol	**12000**	**U**								
N-Nitrosodiphenylamine	5000	U								
4-Bromophenyl-phenylether	**5000**	**U**								
Hexachlorobenzene	5000	U								
Atrazine	**5000**	**UJ**								
Pentachlorophenol	12000	U								
Phenanthrene	**5000**	**U**								
Anthracene	5000	U								
Carbazole	**5000**	**U**								
Di-n-butylphthalate	5000	U								
Fluoranthene	**5000**	**U**								
Pyrene	5000	U								
Butylbenzylphthalate	**5000**	**U**								
3,3'-Dichlorobenzidine	5000	U								
Benzo(a)anthracene	**5000**	**U**								
Chrysene	5000	U								
bis(2-Ethylhexyl)phthalate	**5000**	**U**								
Di-n-octylphthalate	5000	UJ								
Benzo(b)fluoranthene	**5000**	**U**								
Benzo(k)fluoranthene	5000	U								
Benzo(a)pyrene	**5000**	**U**								
Indeno(1,2,3-cd)pyrene	5000	U								
Dibenzo(a,h)anthracene	**5000**	**U**								
Benzo(g,h,i)perylene	5000	U								

Case #: 30721
SDG : E21M0
Site : SAUGET SITES H & I
Number of Soil Samples : 2
Lab. : CLAYTN
Number of Water Samples : 0
Reviewer :
Date :

Sample Number :	E21M0		E21M0DL		E21M0MS		E21M0MSD		E21M1	
Sampling Location :	H/WS-02-07		H/WS-02-07		H/WS-02-07		H/WS-02-07		H/WS-02-08	
Matrix :	Soil		Soil		Soil		Soil		Soil	
Units :	ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg	
Date Sampled :	07/15/2002		07/15/2002		07/15/2002		07/15/2002		07/15/2002	
Time Sampled :	15:32		15:32		15:32		15:32		15:32	
%Moisture :	N/A		N/A		N/A		N/A		N/A	
pH :	7.6		7.6		7.6		7.6		0.0	
Dilution Factor :	10.0		100.0		10.0		10.0		5.0	
Pesticide/PCB Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
alpha-BHC	2100	J	4100	J	3000	J	510	U	260	U
beta-BHC	510	U	5100	U	510	U	510	U	96	J
delta-BHC	510	U	5100	U	510	U	510	U	260	U
gamma-BHC (Lindane)	510	U	5100	U	510	U	510	U	260	U
Heptachlor	14000	J	28000	J	21000	J	22000	J	260	U
Aldrin	510	U	5100	U	510	U	510	U	260	U
Heptachlor epoxide	510	U	5100	U	100000	J	510	U	260	U
Endosulfan I	1400	J	1700	J	3300	J	2500	J	260	U
Dieldrin	990	U	9900	U	990	U	990	U	500	U
4,4'-DDE	990	U	9900	U	990	U	990	U	3100	J
Endrin	990	U	9900	U	990	U	990	U	500	U
Endosulfan II	4400	J	4200	J	19000	J	6800	J	1000	J
4,4'-DDD	6700	J	6400	J	30000	J	10000	J	26000	J
Endosulfan sulfate	17000	J	9900	U	38000	J	27000	J	500	U
4,4'-DDT	990	U	9900	U	990	U	990	U	500	U
Methoxychlor	5100	U	86000	J	5100	U	5100	U	3800	J
Endrin ketone	14000	J	9900	U	36000	J	22000	J	500	U
Endrin aldehyde	14000	J	9900	U	990	U	990	U	500	U
alpha-Chlordane	510	U	5100	U	510	U	510	U	260	U
gamma-Chlordane	510	U	5100	U	510	U	510	U	260	U
Toxaphene	51000	U	510000	U	51000	U	51000	U	26000	U
Aroclor-1016	9900	U	99000	U	9900	U	9900	U	5000	U
Aroclor-1221	20000	U	200000	U	20000	U	20000	U	10000	U
Aroclor-1232	9900	U	99000	U	9900	U	9900	U	5000	U
Aroclor-1242	980000	J	1600000	J	1100000	J	1200000	J	5000	U
Aroclor-1248	9900	U	99000	U	9900	U	9900	U	5000	U
Aroclor-1254	750000	J	1100000	J	950000	J	940000	J	41000	J
Aroclor-1260	1400000	J	1300000	J	1400000	J	1300000	J	18000	J

Case #: 30721 SDG : E21M0
Site : SAUGET SITES H & I
Lab. : CLAYTN
Reviewer :
Date :

Sample Number :	E21M1DL		PBLK1S							
Sampling Location :	H/WS-02-08									
Matrix :	Soil		Soil							
Units :	ug/Kg		ug/Kg							
Date Sampled :	07/15/2002									
Time Sampled :	15:32									
%Moisture :	N/A		N/A							
pH :	0.0		6.4							
Dilution Factor :	50.0		1.0							
Pesticide/PCB Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
alpha-BHC	2600	U	51	U						
beta-BHC	2600	U	51	U						
delta-BHC	2600	U	51	U						
gamma-BHC (Lindane)	2600	U	51	U						
Heptachlor	2600	U	51	U						
Aldrin	2600	U	51	U						
Heptachlor epoxide	2600	U	51	U						
Endosulfan I	2600	U	51	U						
Dieldrin	5000	U	99	U						
4,4'-DDE	5000	U	99	U						
Endrin	5000	U	99	U						
Endosulfan II	1200	J	99	U						
4,4'-DDD	26000	J	99	U						
Endosulfan sulfate	5000	U	99	U						
4,4'-DDT	5000	U	99	U						
Methoxychlor	26000	U	510	U						
Endrin ketone	5000	U	99	U						
Endrin aldehyde	5000	U	99	U						
alpha-Chlordane	2600	U	51	U						
gamma-Chlordane	2600	U	51	U						
Toxaphene	260000	U	5100	U						
Aroclor-1016	50000	U	990	U						
Aroclor-1221	100000	U	2000	U						
Aroclor-1232	50000	U	990	U						
Aroclor-1242	50000	U	990	U						
Aroclor-1248	50000	U	990	U						
Aroclor-1254	50000	J	990	U						
Aroclor-1260	17000	J	990	U						

Sample Delivery Group (SDG)
Traffic Report (TR) Cover Sheet

SDG Number E21M0

Laboratory Name Clayton Group Services, Inc. Laboratory Code CLAYTN

Contract No. 68-W-99069 Case No. 30721

Analysis Price $ 649.00 SDG Turnaround 7 Day

EPA Sample Numbers in SDG (Listed in Alpha Numeric Order)

1)	E21M0 *	7)		13)		19)	
2)	E21M1	8)		14)		20)	
3)		9)		15)		21)	
4)		10)		16)		22)	
5)		11)		17)		23)	
6)		12)		18)		24)	

*MS/MSD

E21M0	E21M1
First Sample in SDG	Last Sample in SDG
7/17/02	7/17/02
First Sample Receipt Date	Last Sample Receipt Date

SDG closed 7/17/02

Note: *There are a maximum of 20* ***field*** *samples (excluding PE samples) in an SDG. Attach TRs to this form in alphanumeric order (the order listed above on this form).*

Signature Karen Cooper Date 7/19/02

USEPA Contract Laboratory Program
Organic Traffic Report & Chain of Custody Record

Case No: 30721
DAS No:
SDG No: E21M0

L

Date Shipped: 7/16/2002
Carrier Name: FedEx
Airbill: 827673148902
Shipped to: Clayton Environmental Consultants, Inc
22345 Roethel Drive
Novi MI 48375
(248) 344-1770

Chain of Custody Record

	Relinquished By (Date / Time)	Received By (Date / Time)
1	Debbie Reston 7/16/02 1300	
2		Erica Yoder 7-17-02 10:04
3		
4		

Sampler Signature: Debbie Reston

For Lab Use Only

Lab Contract No: 68W99069
Unit Price: $649.00
Transfer To:
Lab Contract No:
Unit Price:

ORGANIC SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No./ PRESERVATIVE	STATION LOCATION	SAMPLE COLLECT DATE/TIME	INORGANIC SAMPLE No.	FOR LAB USE ONLY Sample Condition On Receipt
E21L7	Soil/Sediment/ Mechelle Anderson	M/G	BNA (7), PEST (7), VOA (7)	598855 (Ice Only), 598856 (Ice Only), 598857 (Ice Only) (3)	H/WS-01-04	S: 7/15/2002 14:10	ME21L7	
E21L8	Soil/Sediment/ Mechelle Anderson	M/G	BNA (7), PEST (7), VOA (7)	598859 (Ice Only), 598860 (Ice Only), 598861 (Ice Only) (3)	H/WS-01-05	S: 7/15/2002 14:25	ME21L8	
E21L9	Soil/Sediment/ Mechelle Anderson	M/G	BNA (7), PEST (7), VOA (7)	598863 (Ice Only), 598864 (Ice Only), 598865 (Ice Only) (3)	H/WS-02-06	S: 7/15/2002 15:32	ME21L9	
E21M0	Soil/Sediment/ Mechelle Anderson	M/G	BNA (7), PEST (7), VOA (7)	598867 (Ice Only), 598868 (Ice Only), 598869 (Ice Only) (3)	H/WS-02-07	S: 7/15/2002 15:32	ME21M0	
* E21M1	Soil/Sediment/ Mechelle Anderson	M/G	BNA (7), PEST (7), VOA (7)	598871 (Ice Only), 598872 (Ice Only), 598873 (Ice Only) (3)	H/WS-02-08	S: 7/15/2002 15:32	ME21M1	

1000

Last Sample in SDG

COPY
Original Documents
are in CSF E21K0/E2021
1-17-02

Shipment for Case Complete?N	Sample(s) to be used for laboratory QC:	Additional Sampler Signature(s):	Cooler Temperature Upon Receipt:	Chain of Custody Seal Number:
			5.0°C	87124/87125

Analysis Key:	Concentration: L = Low, M = Low/Medium, H = High	Type/Designate: Composite = C, Grab = G	Custody Seal Intact? ✓	Shipment Iced? ✓

BNA = CLP TCL Semivolatiles, PEST = CLP TCL Pesticide/PCBs, VOA = CLP TCL Volatiles

TR Number: 5-343595582-071602-0004

LABORATORY COPY

PR provides preliminary results. Requests for preliminary results will increase analytical costs.
Send Copy to: Contract Laboratory Analytical Services Support, 2000 Edmund Halley Dr., Reston, VA. 20191-3436 Phone 703/264-9348 Fax 703/264-9222

Cover 2

USEPA Contract Laboratory Program
Organic Traffic Report & Chain of Custody Record

Case No: 30721
DAS No:
SDG No: E21M0

L

Date Shipped: 7/16/2002
Carrier Name: FedEx
Airbill: 827673148924
Shipped to: Clayton Environmental Consultants, Inc
22345 Roethel Drive
Novi MI 48375
(248) 344-1770

Chain of Custody Record

Sampler Signature: [signature]

	Relinquished By (Date / Time)	Received By (Date / Time)
1	[signature] 7/16/02 1300	
2		[signature] 7-17-02 10:02am
3		
4		

For Lab Use Only 68W99069
Lab Contract No: 68W99063 7-17-02
Unit Price: $649.00
Transfer To:
Lab Contract No:
Unit Price:

ORGANIC SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No./ PRESERVATIVE	STATION LOCATION	SAMPLE COLLECT DATE/TIME	INORGANIC SAMPLE No.	FOR LAB USE ONLY Sample Condition On Receipt
E21L1	Soil/Sediment/ Mechelle Anderson	M/G	BNA/PEST (7), VOA (7)	598837 (Ice Only), 598838 (Ice Only) (2)	WS-03-01	S: 7/14/2002 14:17	ME21L1	
E21L2	Soil/Sediment/ Mechelle Anderson	M/G	BNA/PEST (7), VOA (7)	598840 (Ice Only), 598841 (Ice Only) (2)	WS-03-02	S: 7/14/2002 14:19	ME21L2	
E21L3	Soil/Sediment/ Mechelle Anderson	M/G	BNA/PEST (7), VOA (7)	598843 (Ice Only), 598844 (Ice Only) (2)	WS-01	S: 7/13/2002 15:52 E: 15:52	ME21L3	
E21L4	Soil/Sediment/ Mechelle Anderson	M/G	BNA/PEST (7), VOA (7)	598846 (Ice Only), 598847 (Ice Only) (2)	H/WS-01-01	S: 7/15/2002 11:15	ME21L4	
E21L5	Soil/Sediment/ Mechelle Anderson	M/G	BNA/PEST (7), VOA (7)	598849 (Ice Only), 598850 (Ice Only) (2)	H/WS-01-02	S: 7/15/2002 11:20	ME21L5	
E21L6	Soil/Sediment/ Mechelle Anderson	M/G	BNA/PEST (7), VOA (7)	598852 (Ice Only), 598853 (Ice Only) (2)	H/WS-01-03	S: 7/15/2002 11:52	ME21L6	

0003

COPY
Original Documents
are in CSF E21K01 30721
7-17-02

Shipment for Case Complete? N	Sample(s) to be used for laboratory QC:	Additional Sampler Signature(s):	Cooler Temperature Upon Receipt: 8.8	Chain of Custody Seal Number: 87120 87121
Analysis Key:	Concentration: L = Low, M = Low/Medium, H = High	Type/Designate: Composite = C, Grab = G		Custody Seal Intact? ✓ Shipment Iced? ✓

BNA/PEST = CLP TCL Semivolatiles and Pesticides/PC, VOA = CLP TCL Volatiles

TR Number: 5-343595582-071602-0002

LABORATORY COPY

PR provides preliminary results. Requests for preliminary results will increase analytical costs.
Send Copy to: Contract Laboratory Analytical Services Support, 2000 Edmund Halley Dr., Reston, VA. 20191-3436 Phone 703/264-9348 Fax 703/264-9222

Cooler 1

SDG NARRATIVE

Lab Name: Clayton Group Services (CLAYTN)

Contract No.: 68-W-99069

Case No.: 30721

SDG No.: E21M0

Clayton Work Order No.: 2070441
DO#: 3
Turnaround Requirements: 7 Day

	EPA Sample Number	Matrix	Analysis
1	E21M0*	Soil	Full Organics
2	E21M1	Soil	Full Organics

*MS/MSD

Sample Information

A sample was not designated as the QC sample on the Traffic Report. Dyncorp was notified on July 17, 2002. The laboratory was instructed to choose a QC sample.

Sample E21M0 was chosen as the MS/MSD for the soil samples.

Special Matrix Information

These samples were originally scheduled as soil samples. Cecilia Moore, USEPA Region 5 TPO, confirmed that there were 50 soil samples and 20 sludge samples scheduled. When the twenty-two samples arrived (SDGs E21K0 and E21M0), these samples were waste samples, not soils. The samples emitted very strong odors.

Analysts began working on the samples. The odors from the samples caused three analysts to become ill after weighing up samples in hoods. The laboratory halted the analyses on July 17, 2002, until further information could be obtained. The laboratory sent to Dyncorp on July 17, 2002, detailed descriptions of the samples and the problems encountered. Since the Statement of Work is written for soil and water samples only, the laboratory asked Dyncorp for recommendations on how to handle these samples.

The sampler indicated to Dyncorp that the samples were from a landfill, so there was no background information or history.

The Region asked the laboratory what analysis could not be done. The laboratory explained that all samples for all analyses should be done as medium-level samples. There was health concerns for employees and there was also concern that the samples could contaminate the laboratory and the instrumentation. Also, due to the strong odors (many were solvent-like), there was a concern that the samples would flash when heated for the percent moisture.

On July 18, 2002, the Region instructed the laboratory to analyze all samples as medium-levels. Also, the laboratory would not be required to do clean-ups (GPC) on the samples, nor would the laboratory be required to analyzed for percent moisture.

On July 26, 2002, the laboratory informed Dyncorp, that because of the sample matrix, the laboratory could not do the pH on sample E21M1 (a concrete sample).

On July 26, 2002, the laboratory also asked Dyncorp what matrix should be listed on the above table. Dyncorp informed the laboratory that due to the constraints of the electronic program, the reported matrix should be soil, not waste.

Lab Name: Clayton Group Services (CLAYTN) Contract No.: 68-W-99069

Case No.:30721 SDG No.: E21M0 Clayton Work Order No.: 2070441

Shipment Information

Two soil samples for Full Organics analysis were received on July 17, 2002, under Federal Express airbill no. 8276-7314-8902. The samples were received intact. The temperature of the cooler was 5.0°C.

On the Traffic Report, there was not a signature in the "Sampler Signature" box. Dyncorp was notified on July 17, 2002. The laboratory was instructed to proceed with the analysis.

The Traffic Report also indicated that the Case was not complete, however, the Shipping Notification form indicated that the Case was complete. Dyncorp was notified of the discrepancy. The sampler confirmed that the Case was complete.

Date Recv'd:	Cooler #:	Airbill #:	Sample ID:	Temperature (C):*
7/17/02	2	8276-7314-8902	E21M0, E21M1	5.0

Lab Name: Clayton Group Services (CLAYTN) Contract No.: 68-W-99069

Case No.:30721 SDG No.: E21M0 Clayton Work Order No.: 2070441

Analytical Information

VOA

Samples were extracted as medium-level samples, with approval from the Region on July 18, 2002. Also, the percent moisture was not done on the samples, with the Region's approval. (Therefore, results are reported on a wet-weight basis.)

BNA

Among the target compounds in BNA analysis Indeno[1,2,3-cd]pyrene and Dibenzo[a,h]anthracene co-eluted. Both compounds share ions 278 and 139. Fortunately, there is no ion 276 in Dibenzo[a,h]anthracene, and there is only 6% of ion 278 (relative to ion 276); and only 3% of ion 139 (relative to ion 138) present in Indeno[1,2,3-cd]pyrene. When ion 276 is used as a quant ion for Indeno[1,2,3-cd]pyrene, there should not be any interference problem. However, there will be a 6% overlap of ion 278 which will cause less accuracy for Dibenzo[a,h]anthracene. To guard against this deficiency, we include the secondary ion of 279 and 139 for the compound Dibenzo[a,h]anthracene in the method used as a further qualitative tool because there is no ion 279 present in the Indeno[1,2,3-cd]pyrene.

Samples were extracted as medium-level samples, with approval from the Region on July 18, 2002. One gram of sample was used to extract. Also, the GPC clean-up and the percent moisture were not done on the samples, with the Region's approval. (Therefore, results are reported on a wet-weight basis.)

Samples E21M1 and E21M1DL were not suitable for the pH analysis. Dyncorp was notified on July 26, 2002.

Manual integrations were performed on samples E21M0, E21M0MS and E21M1.

For samples E21M0, E21M0MS, and E21M0MSD, the reported results are from the diluted sample runs, due to sample matrix.

For sample E21M1, the reported results are from a diluted run. A further dilution was also required, and is reported in E21M1DL.

Pest/PCB

Channel A is the designation on the pesticides data from instrument PP-HP4D, which uses the DB-5MS column.
Channel B is the designation on the pesticides data from instrument PP-HP4D, which uses the DB-608 column.

Samples were extracted as medium-level samples, with approval from the Region on July 18, 2002. One gram of sample was used to extract. Also, the GPC clean-up and the percent moisture were not done on the samples, with the Region's approval. (Therefore, results are reported on a wet-weight basis.)

Samples E21M1 and E21M1DL were not suitable for the pH analysis. Dyncorp was notified on July 26, 2002.

Sample E21M0 was analyzed at a one to ten dilution and a one to one hundred dilution. Sample E21M1 was analyzed at a one to five dilution and a one to fifty dilution. This was due to the sample matrix and the high concentration of Aroclors present in the samples.

GC/MS confirmation was performed on samples E21M0 and E21 M1, using a library search. All Aroclors were confirmed. 4,4'-DDD was also confirmed in sample E21M1.

In samples E21M0MS and E21M0MSD, the spiked Pesticide compounds were not recovered due to matrix interferences, the high concentration of Aroclors and the dilutions that were required.

In Sample E21M1, the patterns for Aroclor 1254 and 1260 were very distorted. This was due to matrix interference.

In samples E21M0 and E21M1, most of the Pesticides detected are Aroclor peaks. The peaks are reported as Pesticides to comply with the Statement of Work requirements.

Lab Name: Clayton Group Services (CLAYTN) Contract No.: 68-W-99069

Case No.:30721 SDG No.: E21M0 Clayton Work Order No.: 2070441

GC Columns

Instrument ID	Column Serial #	Brand Name	Internal Diameter (mm)	Length (Meters)	Coating Material	Film Thickness (µm)
VOA						
MS-HP11K	451951	Restek	0.25	60	RTX-624	1.4
BNA						
MS-HP9I	221318	Restek	0.25	30	XTI-5	1
Pesticides						
PP-HP4D	9255825	J & W Scientific	0.53	30	DB-5MS	1.5
PP-HP4D	0503115	J & W Scientific	0.53	30	DB-608	0.83

VOA Traps

Trap Name	Packing Material/ Brand Name	Composition	Amount/Length (cm)
Supelco Purge & Trap K	Supelco	Carbopak B	10 cm
Vocarb 3000		Carboxen 1000	6 cm
		Carboxen 1001	1 cm

Lab Name: Clayton Group Services (CLAYTN) Contract No.: 68-W-99069

Case No.:30721 SDG No.: E21M0 Clayton Work Order No.: 2070441

Technical/Administrative Problems and Corrective Actions

For the VOA and BNA analysis, the Hewlett-Packard software flags all manual edits or any compounds affected by the manual edit of an internal standard with an "m" on the reports. The peak is displayed with the baseline of the manual edits and is documented along with the associated "m" flag on the quant report and spectra report. These edits were necessary due to poor computer integration.

For the pesticide/PCB analysis, all manual edits are documented in the Timed Event Table and are flagged with a capital "M." The time with a "M" indicates the start time and a -M indicates the stop time of the integration. The baseline is then drawn and displayed on the corresponding chromatogram. These manual integrations were necessary due to poor computer integration.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the laboratory manager or his/her designee, as verified by the following signature.

Erica Yaser for Date 7-30-02

Tim Fields
Organic Laboratory Manager

Record of Communication
From Karen Coonan, Clayton Group Services

7/12/02 5:00PM (Friday)– Received a voice message from Jessica Brown, Dyncorp. Case 30721 may need preliminary data.

7/15/02 9:30AM (Monday)– I spoke to Holly Rogers, Dyncorp. The lab would not be able to meet a preliminary turnaround time if it required, for the number of scheduled samples (70).

7/15/02 11:38AM – Received schedule change from Dyncorp that Case 30721 now needs preliminary turnaround time.

7/15/02 1:38PM – I left a message for Cecilia Moore, USEPA Region 5 PO. Regarding: the turnaround time requirement for case 30721 and that the lab would not be able to meet that requirement for so many samples. Also, the fact that the samplers want to send samples out tonight.

7/15/02 1:40PM – I tried contacting Howard Pham, USEPA Region 5 – he is on vacation.

7/15/02 1:53PM – I spoke to Holly Rogers – I told her I was unable to reach Cecilia yet.

7/15/02 1:57PM – I also sent Cecilia an email to contact me as soon as possible.

7/15/02 2:21PM – Holly Rogers instructed me to also call Terry Smith, USEPA, since the lab will have a problem with the turnaround time.

7/15/02 2:30PM – I left a voice message for Terry Smith to call me.

7/15/02 3:00PM – I spoke to Cecilia Moore. I explained that the laboratory cannot meet the preliminary turnaround time (TAT) requirement for that many samples, on such short notice. She will talk to the client to see if the TAT can be switched back to 7 days. She does no think there will be another lab that can do the preliminary work on short notice.

7/15/02 4:10PM – I spoke to Cecilia Moore. She has not been able to reach Terry Smith either. The client said that 7 day TAT is acceptable. There should be 50 soil samples, and 20 sludge samples.

7/15/02 4:12PM - I spoke to Holly Rogers. She will also speak to Cecilia regarding the change in the TAT. The sampler will start to ship samples tonight.

Record of Communication

From Karen Coonan, Clayton Group Services

7/18/02 11:15PM - I spoke to Cecilia Moore, USEPA Region 5 PO, regarding Case 30721. Because of the hazardous nature of the samples, Cecilia said that Terry Smith, Mike Johnson and herself agreed that the laboratory should proceed as follows: all analyses should be done as medium-level analyses (for VOA, BNA and PEST). Also, the laboratory does not need to do clean-ups (GPC) because of the potential to contaminate equipment; the laboratory does not need to do percent moisture because of the concern that the samples will flash in the oven. The lab will need to submit a waiver so that there will be no screen errors for the GPC clean-up and percent moisture.

From: "Scheduling, STR NE" <STR.Scheduling@dyncorp.com>
To: "Erica Yates (E-mail)" <eyates@claytongrp.com>, "K...
Date: Tue, Jul 16, 2002 10:26 AM
Subject: Scheduling Notification Form for Case 30721 CLAYTN 7-15

Attached you will find a .pdf version of the Revised Scheduling Notification Form for Case 30721 for the week of 7/15. Please confirm the fact that you received the e-mail plus attachment and let me know if you cannot read the file.

Please reply to the e-mail address that this e-mail was sent from (STR.Scheduling@dyncorp.com).

If you have questions concerning a particular case, please contact the coordinator of that case. If you have programmatic questions or problems, please contact Carolyn Mack at 703-264-9323 (Carolyn.Mack@dyncorp.com) or Loren Minnich at 703-264-9204 (loren.minnich@dyncorp.com).

Please note that preliminary results are no longer required for this Case.

Scheduling ST&R
STR.Scheduling@dyncorp.com <mailto:STR.Scheduling@dyncorp.com>
703-264-9323

Scheduling Notification Form

Please reply to STR.Scheduling@dyncorp.com to confirm receipt of this notification.

Laboratory: CLAYTN (248)344-1770 Contact Person: Karen Coonan / Erica Yates Week Of: 07/15/02

Reg	Contract #	Cost Lot / DO #	Base Price	Case#	Samples Scheduled	TA	Method	Coordinator	PR	Fax No. for PRs	Special Requirements / Comments
5	68W99069	C/ 3	649.00	30721	70 LS VOA/BNA/PEST	7		Jessica	N	( ) -	

MATRIX: LW=Low Conc. Water
SW=Surface Water
LS=Low Conc. Soil
MS=Medium Conc. Soil
LD=Low Sediment
LL=Low Conc. Program Water

TURNAROUND:
PR=Preliminary Results

METHOD: 1=Encore
2=Pre-prepared

COORDINATOR:	REGIONS	TELEPHONE E-MAIL
Jessica Brown	4, 5, 8	(703) 264-9349 jessica.brown@dyncorp.com
Carolyn Mack	6, 7, 10	(703) 264-9323 carolyn.mack@dyncorp.com
Holly Rogers	3, 9	(703) 264-9526 holly.rogers@dyncorp.com
Heather Bauer	1, 2	(703) 264-9348 heather.bauer@dyncorp.com

ANALYSIS: VOA/BNA/PES = Full Target Compound List
TM/CN = Total Metals and Cyanide
DM=Dissolved Metals

When sending data packages to SMO, please direct them to the "SMO MAILROOM", not specific DynCorp personnel.

*** * * PLEASE INVOICE ACCORDINGLY! * * ***
Please remember to invoice with the appropriate Delivery Order (DO#) for each Case listed above.

SMO Preliminary Result Delivery Options:
1) **FAX to CCS at (703) 715-4820**
2) **E-mail in PDF format to either:**
Carol Robertson at carol.robertson@dyncorp.com
Eloise Danganan at eloise.danganan@dyncorp.com

0973

From: "Scheduling, STR NE" <STR.Scheduling@dyncorp.com>
To: "Erica Yates (E-mail)" <eyates@claytongrp.com>, "K...
Date: Tue, Jul 16, 2002 1:49 PM
Subject: Shipping Notification Form for Case 30721 CLAYTN 7-16

Attached you will find a .pdf version of the Shipping Notification Form. *Please verify all sample shipments and determine whether Traffic Reports* received match shipping and scheduling information provided by SMO. If there is a problem with the above information, please call the appropriate coordinator.

You do not need to confirm receipt of this Shipping Notification e-mail.

If you have questions concerning a particular case, please contact the coordinator of that case. If you have programmatic questions or problems, please contact Carolyn Mack at 703-264-9323 (Carolyn.Mack@dyncorp.com <mailto:Carolyn.Mack@dyncorp.com>)or Loren Minnich at 703-264-9204 (Loren.Minnich@dyncorp.com <mailto:Loren.Minnich@dyncorp.com>)

Please note that this Case is complete. The Case undershipped because the sampler was unable to collect all of the anticipated samples.

Scheduling ST&R
STR.Scheduling@dyncorp.com <mailto:STR.Scheduling@dyncorp.com>
703-264-9323

SHIPPING NOTIFICATION FORM

DATE: 7/16/2002

TO: CLAYTN Karen Coonan / Erica Yates

FROM: RAS COORDINATORS

Case No	Coordinator	Region	Date	Airbill Number	Samples Shipped	Method	Turn Around	PR	Fax Number for Preliminary Results	Ship Info Comp Y/N
30721	Jessica	5	7/16/02	827673148924	11 LS VOA/BNA/PEST		7	N		Y

Lab should verify all sample shipments and determine whether TRs received match shipping and scheduling information, provided by SMO.
Call the appropriate coordinator if there is a problem with the above information.

MATRIX: LW=Low Conc. Water LS=Low Conc. Soil MS=Medium Conc. Soil LD=Low Conc. Sediment

METHOD: 1 = Encore 2 = Pre-Prepared

ANALYSIS: VOA/BNA/PES = Full Target Compound List PES = Pesticide/PCBs

TM/CN=Total Metals and Cyanide; TM=Total Metals Only; CN=Cyanide; DM=Dissolved Metals

TURNAROUND: PR = Preliminary Results Required

CCS FAX Number for preliminary result is (703) 715-4820
CCS Secondary Fax Number for preliminary result is (703) 264-9236

Case is Complete

Additional Airbill number 827673148902.

Please note that this Case undershipped because the sampler was unable to collect all of the anticipated samples.

0975

Record of Communication

From Karen Coonan, Clayton Group Services

7/12/02 5:00PM (Friday)– Received a voice message from Jessica Brown, Dyncorp. Case 30721 may need preliminary data.

7/15/02 9:30AM (Monday)– I spoke to Holly Rogers, Dyncorp. The lab would not be able to meet a preliminary turnaround time if it required, for the number of scheduled samples (70).

7/15/02 11:38AM – Received schedule change from Dyncorp that Case 30721 now needs preliminary turnaround time.

7/15/02 1:38PM – I left a message for Cecilia Moore, USEPA Region 5 PO. Regarding: the turnaround time requirement for case 30721 and that the lab would not be able to meet that requirement for so many samples. Also, the fact that the samplers want to send samples out tonight.

7/15/02 1:40PM – I tried contacting Howard Pham, USEPA Region 5 – he is on vacation.

7/15/02 1:53PM – I spoke to Holly Rogers – I told her I was unable to reach Cecilia yet.

7/15/02 1:57PM – I also sent Cecilia an email to contact me as soon as possible.

7/15/02 2:21PM – Holly Rogers instructed me to also call Terry Smith, USEPA, since the lab will have a problem with the turnaround time.

7/15/02 2:30PM – I left a voice message for Terry Smith to call me.

7/15/02 3:00PM – I spoke to Cecilia Moore. I explained that the laboratory cannot meet the preliminary turnaround time (TAT) requirement for that many samples, on such short notice. She will talk to the client to see if the TAT can be switched back to 7 days. She does no think there will be another lab that can do the preliminary work on short notice.

7/15/02 4:10PM – I spoke to Cecilia Moore. She has not been able to reach Terry Smith either. The client said that 7 day TAT is acceptable. There should be 50 soil samples, and 20 sludge samples.

7/15/02 4:12PM - I spoke to Holly Rogers. She will also speak to Cecilia regarding the change in the TAT. The sampler will start to ship samples tonight.

From: "Brown, Jessica" <Jessica.Brown@dyncorp.com>
To: "Karen Coonan (E-mail)" <Kcoonan@claytongrp.com>, ...
Date: Tue, Jul 16, 2002 2:48 PM
Subject: Region 05 | Case 30721 | Lab CLAYTN | Issue TR/COC discrepancy - analysis level | FINAL

Karen and Erica,

This is Holly Rogers. Jessica will be out of the office until Thursday, 7/18.

Following is the resolution from Region 5 regarding the concentration for the samples received today for Case 30721. Per the Region, the samples are for low/medium level analysis, not medium level analysis. The lab should note the issue in the SDG narrative and proceed with the analysis of the samples at low/medium level.

If you have any other questions or problems, please let me know.

Thanks,
Holly

7/16
2:33pm -- Phone conversation with Cecilia Moore, CLP PO Region 5. Per the Region, the sampler's resolution should be sent to the lab.

-----Original Message-----
From: Brown, Jessica
Sent: Tuesday, July 16, 2002 12:25 PM
To: Cecilia Moore (E-mail); Cheryl Simpson (E-mail)
Subject: Region 05 | Case 30721 | Lab CLAYTN | Issue TR/COC discrepancy - analysis level

Cecilia and Cheryl,

This is Holly Rogers. Jessica is out of the office until Thursday, 7/18.

Following is the resolution from Brandt Brown, Tetra Tech. Per the sampler, CLAYTN should analyze all organic samples for Case 30721 for low/medium level analysis, not for medium level analysis. The lab should note the issue in the SDG narrative and proceed with the analysis. Please verify that this is the resolution that should be sent to the lab.

Thanks,
Holly

-----Original Message-----
From: Brown, Brandt [mailto:Brandt.Brown@ttemi.com]
Sent: Tuesday, July 16, 2002 12:13 PM
To: Brown, Jessica
Subject: RE: Region 05 | Case 30721 | Lab CLAYTN | Issue TR/COC discrepancy - analysis level

Holly-

These samples should be analyzed for Low/medium analysis, not medium.
Please tell the labs to analyze for low/medium.

Thanks
Brandt

-----Original Message-----
From: Brown, Jessica [mailto:Jessica.Brown@dyncorp.com]
Sent: Tuesday, July 16, 2002 11:11 AM
To: Brown, Brandt
Subject: Region 05 | Case 30721 | Lab CLAYTN | Issue TR/COC discrepancy - analysis level

Brandt,

This is Holly Rogers. Jessica will be out of the office until Thursday, 7/18.

I received your voice mail saying to send all issues for this Case to you. The issue below is from CLAYTN regarding Case 30721. Please advise on how the lab should proceed.

Thanks,
Holly

> -----Original Message-----
> From: Brown, Jessica
> Sent: Tuesday, July 16, 2002 11:48 AM
> To: Eric Monschein (E-mail)
> Cc: Cecilia Moore (E-mail); Cheryl Simpson (E-mail)
> Subject: Region 05 | Case 30721 | Lab CLAYTN | Issue TR/COC
> discrepancy - analysis level
>
> Eric,
>
> This is Holly Rogers. Jessica will be out of the office until Thursday,
> 7/18.
>
> Following is a record of a phone conversation with CLAYTN regarding
> samples received today for Case 30721. The concentration listed on the TR
> for the samples received today for this Case is "MG" for medium level
> analysis. The lab would like to know if they should perform medium level
> analysis on these samples.
>
> Please advise on how the lab should proceed.
>
> Thanks,
> Holly
>
> Jessica Brown
> DynCorp Systems & Solutions LLC
> CLP Coordinator for Regions 4, 5, & 8
> jessica.brown@dyncorp.com

> Ph: 703.264.9349; Fax: 703.264.9222
>
> 7/16
> 10:52am -- Holly Rogers, SMO, received a voice mail from Erica Yates,
> CLAYTN. The lab received samples today for Case 30721. The concentration
> for these samples is listed on the TR as "MG" for medium level analysis.
> The lab would like to know if they should perform medium level analysis on
> these samples.

CC: "Brandt Brown (E-mail)" <brownb@ttemi.com>, "Cecil...

From: Karen Coonan
To: "Jessica.Brown@dyncorp.com"@CGS_Inet.GWIA6; "Johnson. Michael @ EPA
Date: Thu, Jul 18, 2002 11:10 AM Smith. Terry @ EPA
Subject: Re: Region 05 | Case 30721 | Lab CLAYTN | Issue Multiple holly.rogers@dyncorp
cc: brownb.@hemi
monshe@hemi
moore.cecilia@EPA
Pham. howard @ EPA
Simpson. Cheryl @ EPA

Hi Holly,

Because these are waste samples, not soil or sediment samples, this is how the lab would like to proceed (since waste samples are not covered in the SOW):

Volatiles: All samples were prepared as medium-level samples. Analysis has already started for these, since the samples had already been prepped before we "stopped all work". The analysts are finding that many samples have to be done with further dilutions (possibly 1000 times or greater). All samples will be done as medium-levels. They are finding forms of Chlorobenzene (possibly what you might find in pesticides). The analysts feel, though, that what they are seeing does not account for the strong odors that are present in the samples (ie, the odors could be from heavier compounds that will be found during the BNA and PEST analysis).

Since these are waste samples, the lab is concerned about contaminating the GPC and the other instruments. Also, the medium-level VOAs are indicating that there are also heavier compounds present. Therefore, the lab would like to do the following:

BNA: The lab would extract these samples as medium-level samples.

PEST/PCB: The lab would like to extract these as medium-level samples. The samples would be extracted using the same weight as BNA medium-level samples. Since there is not a method for medium-level PEST, the Region would have to approve this.

Percent moisture should not be done on most of these samples. There is a concern that these samples will flash in the oven while drying.

Karen Coonan
Clayton Group Services
CLP Project Manager
(248) 344-2671
kcoonan@claytongrp.com

>>> "Brown, Jessica" <Jessica.Brown@dyncorp.com> 07/17 5:36 PM >>>
This is Holly Rogers. Jessica will be out of the office until Thursday, 7/18.

Following is a record of communication regarding samples that CLAYTN received for Case 30721.

7/17
5:02pm -- Phone conversation between Loren Minnich, SMO, and Mike Johnson, EPA AOC, regarding this issue. Mike requested that SMO send him the record of communication for this issue, including all contacts involved.

4:36pm -- Holly Rogers, SMO, received a voice mail from Cecilia Moore, PO Region 5. Per the Region, SMO should contact CLAYTN to determine which compounds the lab absolutely can not analyze and which compounds they are most concerned about. SMO should also contact Terry Smith, or whoever is

covering for him at Headquarters to obtain the next course of action contractually.

4:06pm -- Holly Rogers, SMO, left a voice mail for Cecilia Moore, PO Region 5, regarding the sampler's response to this issue.

2:20pm -- Phone conversation between Holly Rogers, SMO, and Brandt Brown, Tetra Tech EMI. The sampler would like to know what information the lab requires. He said that the samples are from a landfill site and he doesn't know what's in them - that's why the samples are being sent for analysis.

-----Original Message-----
From: Brown, Jessica
Sent: Wednesday, July 17, 2002 1:55 PM
To: Brandt Brown (E-mail); Eric Monschein (E-mail)
Cc: Cecilia Moore (E-mail)
Subject: Region 05 | Case 30721 | Lab CLAYTN | Issue Multiple

Eric and Brandt,

Following is an email from CLAYTN regarding multiple issues for samples received for Case 30721. The lab has halted analysis of these samples until more information is given regarding the samples because the lab is worried about health risks to their employees. This Case is for a 7-day TAT.

Please see the email from the lab below and advise on how the lab should proceed.

Thanks,
Holly

-----Original Message-----
From: Moore.Cecilia@epamail.epa.gov [mailto:Moore.Cecilia@epamail.epa.gov]
Sent: Wednesday, July 17, 2002 1:54 PM
To: Karen Coonan
Cc: Rogers, Holly
Subject: Re: Case 30721

My responses are below. (Holly Rogers, SMO, has indicated the Region's comments with an asterisk * to avoid confusion)

-----Original Message-----
From: Rogers, Holly
Sent: Wednesday, July 17, 2002 1:38 PM
To: Brown, Jessica
Subject: FW: Case 30721

7/17
1:32pm -- Phone conversation with Karen Coonan, CLAYTN. The lab would like to make SMO aware of the email below. The samples for this Case are not really soil samples. The lab has numerous concerns and has, at present, halted the analysis due to noxious fumes. The lab noted these problems when they began to weigh and prep the samples.

Holly Rogers

DynCorp Systems and Solutions LLC
CLP Coordinator for Regions 3 & 9
703-264-9526
holly.rogers@dyncorp.com <mailto:holly.rogers@dyncorp.com>

-----Original Message-----
From: Karen Coonan [mailto:KCoonan@claytongrp.com]
Sent: Wednesday, July 17, 2002 1:23 PM
To: Rogers, Holly
Cc: moore.cecilia@epa.gov
Subject: Case 30721

Hi Holly,

We received the second set of samples today. We have some questions and concerns regarding the samples for this case.

1. Samples that were shipped on 7/15/02 did not have a signature in the "Sampler Signature" box. There was a "Relinquished by" signature. (Samples shipped 7/16/02 did have the sampler signature.)

I believe this is a Standard Answer and you can just note the discrepancy in the narrative and proceed with analysis.

2. The Traffic Report received today indicates that the case is not complete. However, the shipping notification form indicated that the case is now closed.

Holly, please check with the sampler as to whether the case is complete or not and then have the lab proceed per the sampler's instructions.

3. Twenty-two samples have been received. These were placed into two SDGs. There were no samples designated as QC. Does the Region want the lab to choose two samples for QC? The last five samples on the TR had three jars collected for each sample (whereas all the other samples had only two jars). So two of these five samples should probably be chosen for BNA and PEST (VOA would rather choose a sample where the odor is not so strong).

Unless you hear differently from the sampler, please have the lab select QC samples.

Note: ALL twenty-two samples emitted very strong odors (solvent- or hydrocarbon-like), indicating probable matrix interference. (The odors caused three analysts to feel lightheaded and nauseous after weighing up the samples in a hood). Also, these samples are not soils. At this point the lab is holding any further analysis. We need to know where these samples came from and what they might contain. The lab is very concerned about the health risks until we have some background information about these samples.

PLEASE HAVE THE SAMPLER INDICATE THE NATURE OF THE SAMPLES AND LET THEM KNOW THAT ANALYSIS WILL BE SUSPENDED UNTIL THAT INFORMATION IS PROVIDED.

The following are physical descriptions:

E21K0: Brown solid (fine sand or filter cake-like) and paper (very noxious odor)

E21K1: Black crystals (dissolved completely in Methanol when prepping for VOA)
E21K2: Black, thick fabric
E21K3: Thick brown sticky resin/solvent with brown solids (when prepping for PEST extractions, the Sodium sulfate was coating the outside of the sample and would not break-up)
E21K4: Hard brown-black solid pieces (slag); does not have as strong of an odor
E21K5: Black sticky tar-like (dissolved completely in Methanol when prepping for VOA, then it appeared ink-like)
E21K6: Brown solid (fine sand or filter cake-like) and paper (very noxious odor)
E21K7: Dark purple/black moist solids, like a filter cake (dissolved completely in Methanol when prepping for VOA)
E21K8: Black rocks (VOA jar also contained black crystals)
E21K9: Mixed black/white/brown moist solid (like a filter-cake) (very noxious odor)
E21L0: Concrete (no odor)
E21L1: Large shiny black chunks (like coal)
E21L2: Black oily, rocky, mud-like solid
E21L3: Tan-brown moist crumbly solids, filter cake-like (very noxious odor)
E21L4: Crumbly moist brown solids
E21L5: Grayish- pink soft rock-like
E21L6: Moist black solids and beads
E21L7: Brown moist solids (very noxious odor)
E21L8: Moist, off-white sand-like granules smells like a weed-killer (dissolved completely in Methanol when prepping for VOA)
E21L9: Black moist soil and rocks
E21M0: Black solids, soil-like
E21M1: Brown rocks and brown solids (smells like amines)

Once we know more about the samples, we have the following issues:

4. Because of the odors/matrix, the VOA lab will analyze these samples first as medium-levels. If there is nothing present, then they will go back and analyze as low-levels. For those samples that will be reported as medium-level samples, does the Region want a medium-level MS/MSD?

I need Holly to confirm this, but, I think the SOW requires a medium-level MS/MSD with any medium-level analysis. Additionally, I think the SOW requires low level be performed at no additional cost if the lab opts to analyze as medium-level without screening. I have not checked the SOW due to time, so, the final answer is to proceed per the current SOW.

5. Because of the matrix, two of the samples, E21K3 and E21K5, will cause problems when trying to go through the GPC (see descriptions above). This type of matrix will clog up the column in the GPC, which in turn will shut the instrument down. The lab would like permission to skip the GPC part of the BNA/PEST extraction for these two samples. Is that possible?

If the current SOW allows, the lab may skip the GPC.

6. Because these are bulk samples, do the results still need to be reported on a dry-weight basis? The lab is concerned about running the percent

moistures which is needed in the calculation. The samples are placed in an oven and dried over a period of time. Even if the oven is placed in a hood, the lab is concerned about the fumes - many of the odors are solvents which could ignite when heated and then there is also the health concern of the employees.

Please get a recommendation from the sampler and the lab may proceed per the sampler's recommendation as long as the sampler as provided the potential contaminants for these samples.

Please advise as soon as possible since this is a seven day case.

Thank you,

Karen Coonan
Clayton Group Services
CLP Project Manager
(248) 344-2671
kcoonan@claytongrp.com

CC: "brownb@ttemi.com"@CGS_Inet.GWIA6; "monsche@ttemi...

0984 7/30/02

Record of Communication

From Karen Coonan, Clayton Group Services

7/18/02 11:15PM - I spoke to Cecilia Moore, USEPA Region 5 PO, regarding Case 30721. Because of the hazardous nature of the samples, Cecilia said that Terry Smith, Mike Johnson and herself agreed that the laboratory should proceed as follows: all analyses should be done as medium-level analyses (for VOA, BNA and PEST). Also, the laboratory does not need to do clean-ups (GPC) because of the potential to contaminate equipment; the laboratory does not need to do percent moisture because of the concern that the samples will flash in the oven. The lab will need to submit a waiver so that there will be no screen errors for the GPC clean-up and percent moisture.

From: Karen Coonan
To: Cecilia Moore; Cecilia Moore
Date: Thu, Jul 18, 2002 4:20 PM
Subject: Case 30721 - Request for waiver

Hi Cecilia,

Here is my letter, requesting a waiver. Let me know if it is not specific enough or if I have left anything out that is important.

Thank you,

Karen Coonan
Clayton Group Services
CLP Project Manager
(248) 344-2671
kcoonan@claytongrp.com

July 18, 2002

Ms. Cecilia Moore
USEPA Region V, CAAS
77 West Jackson Blvd. (SMF-4J)
Chicago, IL 60604

Re: Waiver Request

Contract No.: 68-W-99-069
Delivery Order No.: 03
Case No.: 30721
SDG: E21K0 and E21M0
Original Due Date: 07/24/02
Turnaround time: 7 days

Dear Ms. Moore:

The laboratory is in the process of analyzing SDGs E21K0 and E21M0. We have encountered problems with the samples in this Case and are requesting a waiver.

All samples in this Case, except for one, are waste samples, not soil/sediment samples. All twenty-two samples are emitting very strong odors (some are solvent- or hydrocarbon-like).

As three analysts were prepping the samples for the VOA analysis and the Pesticide extraction, they were affected by the fumes from the samples. At this point, the laboratory halted the prep work on July 17, 2002, due to concerns for the safety of the analysts. Dyncorp was notified immediately and asked by the laboratory to find out any background information regarding the origin of the samples.

The sampler informed Dyncorp that these samples were from a landfill, so there is no history on the samples.

Dyncorp and Region 5 asked the laboratory what analysis could not be safely analyzed for. The laboratory informed the Region and Dyncorp that because these are waste samples, the laboratory is concerned about health issues, contaminating the GPC instrument and also the analytical instruments, if the samples were analyzed as low-level samples.

Also, the laboratory did not want to perform the percent moisture analysis. To determine percent moisture, samples are dried in an oven. There was a possibility that these samples would flash (or explode/ignite) due to the strong solvent odors.

On July 18, 2002, the laboratory and the Region agreed that to safely analyze these samples, the VOA, BNA and PEST analyses should be done as medium-level analyses. The Region also agreed that percent moisture should not be done.

Extractions were started for the BNA and PEST analyses on July 18, 2002.

On July 18, 2002, the laboratory also had the screening results for the VOA analysis. All samples were prepared for medium-level analysis. The screen results indicate that many samples will require at least a 1000 times or greater dilution. Some samples are foaming in the instrument, which is causing delays. Many samples contain forms of Chlorobenzene at significant levels, which could also affect the (chlorinated) PEST analysis. There is also indication that there are heavy compounds present, which will affect the BNA and PEST analyses.

The VOA samples will require numerous runs - due to high concentrations of target and non-target compounds and also due to poor QC because of matrix (if a samples fails the QC, it must be re-analyzed to prove its matrix interference, per the SOW). It is strongly believed that the BNA and PEST analyses will also require numerous runs for each sample for the same reasons.

Because these waste samples will require more than one analytical run per sample, per fraction, the laboratory will be unable to meet the required turnaround time. The laboratory is asking for a waiver. Since the BNA and PEST analyses have not been started yet (only the extractions), the laboratory is projecting that it will require at least an additional five working days to complete the analyses and data package. The laboratory is very aware that this Case needs to be done as soon as possible and every effort is being made to get the Case done quickly.

An E-mail is attached that includes physical descriptions of all the samples in this Case and the record of communication.

If you have any further questions, please feel free to contact me at (248) 344-2671.

Sincerely,

Karen Coonan
CLP Program Manager
kcoonan@claytongrp.com

attachment

From: Karen Coonan
To: "Jessica.Brown@dyncorp.com"@CGS_Inet.GWIA6; "John...
Date: Thu, Jul 18, 2002 11:10 AM
Subject: Re: Region 05 | Case 30721 | Lab CLAYTN | Issue Multiple

Hi Holly,

Because these are waste samples, not soil or sediment samples, this is how the lab would like to proceed (since waste samples are not covered in the SOW):

Volatiles: All samples were prepared as medium-level samples. Analysis has already started for these, since the samples had already been prepped before we "stopped all work". The analysts are finding that many samples have to be done with further dilutions (possibly 1000 times or greater). All samples will be done as medium-levels. They are finding forms of Chlorobenzene (possibly what you might find in pesticides). The analysts feel, though, that what they are seeing does not account for the strong odors that are present in the samples (ie, the odors could be from heavier compounds that will be found during the BNA and PEST analysis).

Since these are waste samples, the lab is concerned about contaminating the GPC and the other instruments. Also, the medium-level VOAs are indicating that there are also heavier compounds present. Therefore, the lab would like to do the following:

BNA: The lab would extract these samples as medium-level samples.

PEST/PCB: The lab would like to extract these as medium-level samples. The samples would be extracted using the same weight as BNA medium-level samples. Since there is not a method for medium-level PEST, the Region would have to approve this.

Percent moisture should not be done on most of these samples. There is a concern that these samples will flash in the oven while drying.

Karen Coonan
Clayton Group Services
CLP Project Manager
(248) 344-2671
kcoonan@claytongrp.com

>>> "Brown, Jessica" <Jessica.Brown@dyncorp.com> 07/17 5:36 PM >>>
This is Holly Rogers. Jessica will be out of the office until Thursday, 7/18.

Following is a record of communication regarding samples that CLAYTN received for Case 30721.

7/17
5:02pm -- Phone conversation between Loren Minnich, SMO, and Mike Johnson, EPA AOC, regarding this issue. Mike requested that SMO send him the record of communication for this issue, including all contacts involved.

4:36pm -- Holly Rogers, SMO, received a voice mail from Cecilia Moore, PO Region 5. Per the Region, SMO should contact CLAYTN to determine which compounds the lab absolutely can not analyze and which compounds they are

most concerned about. SMO should also contact Terry Smith, or whoever is covering for him at Headquarters to obtain the next course of action contractually.

4:06pm -- Holly Rogers, SMO, left a voice mail for Cecilia Moore, PO Region 5, regarding the sampler's response to this issue.

2:20pm -- Phone conversation between Holly Rogers, SMO, and Brandt Brown, Tetra Tech EMI. The sampler would like to know what information the lab requires. He said that the samples are from a landfill site and he doesn't know what's in them - that's why the samples are being sent for analysis.

-----Original Message-----
From: Brown, Jessica
Sent: Wednesday, July 17, 2002 1:55 PM
To: Brandt Brown (E-mail); Eric Monschein (E-mail)
Cc: Cecilia Moore (E-mail)
Subject: Region 05 | Case 30721 | Lab CLAYTN | Issue Multiple

Eric and Brandt,

Following is an email from CLAYTN regarding multiple issues for samples received for Case 30721. The lab has halted analysis of these samples until more information is given regarding the samples because the lab is worried about health risks to their employees. This Case is for a 7-day TAT.

Please see the email from the lab below and advise on how the lab should proceed.

Thanks,
Holly

-----Original Message-----
From: Moore.Cecilia@epamail.epa.gov
[mailto:Moore.Cecilia@epamail.epa.gov]
Sent: Wednesday, July 17, 2002 1:54 PM
To: Karen Coonan
Cc: Rogers, Holly
Subject: Re: Case 30721

My responses are below. (Holly Rogers, SMO, has indicated the Region's comments with an asterisk * to avoid confusion)

-----Original Message-----
From: Rogers, Holly
Sent: Wednesday, July 17, 2002 1:38 PM
To: Brown, Jessica
Subject: FW: Case 30721

7/17
1:32pm -- Phone conversation with Karen Coonan, CLAYTN. The lab would like to make SMO aware of the email below. The samples for this Case are not really soil samples. The lab has numerous concerns and has, at present, halted the analysis due to noxious fumes. The lab noted these problems when they began to weigh and prep the samples.

Holly Rogers
DynCorp Systems and Solutions LLC
CLP Coordinator for Regions 3 & 9
703-264-9526
holly.rogers@dyncorp.com <mailto:holly.rogers@dyncorp.com>

-----Original Message-----
From: Karen Coonan [mailto:KCoonan@claytongrp.com]
Sent: Wednesday, July 17, 2002 1:23 PM
To: Rogers, Holly
Cc: moore.cecilia@epa.gov
Subject: Case 30721

Hi Holly,

We received the second set of samples today. We have some questions and concerns regarding the samples for this case.

1. Samples that were shipped on 7/15/02 did not have a signature in the "Sampler Signature" box. There was a "Relinquished by" signature. (Samples shipped 7/16/02 did have the sampler signature.)

I believe this is a Standard Answer and you can just note the discrepancy in the narrative and proceed with analysis.

2. The Traffic Report received today indicates that the case is not complete. However, the shipping notification form indicated that the case is now closed.

Holly, please check with the sampler as to whether the case is complete or not and then have the lab proceed per the sampler's instructions.

3. Twenty-two samples have been received. These were placed into two SDGs. There were no samples designated as QC. Does the Region want the lab to choose two samples for QC? The last five samples on the TR had three jars collected for each sample (whereas all the other samples had only two jars). So two of these five samples should probably be chosen for BNA and PEST (VOA would rather choose a sample where the odor is not so strong).

Unless you hear differently from the sampler, please have the lab select QC samples.

Note: ALL twenty-two samples emitted very strong odors (solvent- or hydrocarbon-like), indicating probable matrix interference. (The odors caused three analysts to feel lightheaded and nauseous after weighing up the samples in a hood). Also, these samples are not soils. At this point the lab is holding any further analysis. We need to know where these samples came from and what they might contain. The lab is very concerned about the health risks until we have some background information about these samples.

PLEASE HAVE THE SAMPLER INDICATE THE NATURE OF THE SAMPLES AND LET THEM KNOW THAT ANALYSIS WILL BE SUSPENDED UNTIL THAT INFORMATION IS PROVIDED.

The following are physical descriptions:

E21K0: Brown solid (fine sand or filter cake-like) and paper (very noxious

odor)
E21K1: Black crystals (dissolved completely in Methanol when prepping for VOA)
E21K2: Black, thick fabric
E21K3: Thick brown sticky resin/solvent with brown solids (when prepping for PEST extractions, the Sodium sulfate was coating the outside of the sample and would not break-up)
E21K4: Hard brown-black solid pieces (slag); does not have as strong of an odor
E21K5: Black sticky tar-like (dissolved completely in Methanol when prepping for VOA, then it appeared ink-like)
E21K6: Brown solid (fine sand or filter cake-like) and paper (very noxious odor)
E21K7: Dark purple/black moist solids, like a filter cake (dissolved completely in Methanol when prepping for VOA)
E21K8: Black rocks (VOA jar also contained black crystals)
E21K9: Mixed black/white/brown moist solid (like a filter-cake) (very noxious odor)
E21L0: Concrete (no odor)
E21L1: Large shiny black chunks (like coal)
E21L2: Black oily, rocky, mud-like solid
E21L3: Tan-brown moist crumbly solids, filter cake-like (very noxious odor)
E21L4: Crumbly moist brown solids
E21L5: Grayish- pink soft rock-like
E21L6: Moist black solids and beads
E21L7: Brown moist solids (very noxious odor)
E21L8: Moist, off-white sand-like granules smells like a weed-killer (dissolved completely in Methanol when prepping for VOA)
E21L9: Black moist soil and rocks
E21M0: Black solids, soil-like
E21M1: Brown rocks and brown solids (smells like amines)

Once we know more about the samples, we have the following issues:

4. Because of the odors/matrix, the VOA lab will analyze these samples first as medium-levels. If there is nothing present, then they will go back and analyze as low-levels. For those samples that will be reported as medium-level samples, does the Region want a medium-level MS/MSD?

I need Holly to confirm this, but, I think the SOW requires a medium-level MS/MSD with any medium-level analysis. Additionally, I think the SOW requires low level be performed at no additional cost if the lab opts to analyze as medium-level without screening. I have not checked the SOW due to time, so, the final answer is to proceed per the current SOW.

5. Because of the matrix, two of the samples, E21K3 and E21K5, will cause problems when trying to go through the GPC (see descriptions above). This type of matrix will clog up the column in the GPC, which in turn will shut the instrument down. The lab would like permission to skip the GPC part of the BNA/PEST extraction for these two samples. Is that possible?

If the current SOW allows, the lab may skip the GPC.

6. Because these are bulk samples, do the results still need to be reported

on a dry-weight basis? The lab is concerned about running the percent moistures which is needed in the calculation. The samples are placed in an oven and dried over a period of time. Even if the oven is placed in a hood, the lab is concerned about the fumes - many of the odors are solvents which could ignite when heated and then there is also the health concern of the employees.

Please get a recommendation from the sampler and the lab may proceed per the sampler's recommendation as long as the sampler as provided the potential contaminants for these samples.

Please advise as soon as possible since this is a seven day case.

Thank you,

Karen Coonan
Clayton Group Services
CLP Project Manager
(248) 344-2671
kcoonan@claytongrp.com

CC: "brownb@ttemi.com"@CGS_Inet.GWIA6; "monsche@ttemi...

From: Karen Coonan
To: Ed David
Date: Fri, Jul 19, 2002 3:33 PM
Subject: Cover Sheets for Case 30721

Ed-

Here are the cover sheets and Traffic Reports for Case 30721, SDGs E21K0 and E21M0.

All samples for this case will be analyzed as medium-level samples. Also, sample E21I) was cancelled by the Region. (Holly has the e-mail).

Karen Coonan
Clayton Group Services
CLP Project Manager
(248) 344-2671
kcoonan@claytongrp.com

From: <Moore.Cecilia@epamail.epa.gov>
To: <kcoonan@claytongrp.com>
Date: Wed, Jul 24, 2002 7:28 AM
Subject: Re: Clayton Waiver Request

FYI

The waiver was approved.

Cecilia
----- Forwarded by Cecilia Moore/R5/USEPA/US on 07/24/02 06:27 AM -----

Thomas Valentino
07/23/02 01:54 PM
To: Cecilia Moore/R5/USEPA/US@EPA
cc: minnichl@dyncorp.com, Terry Smith/DC/USEPA/US@EPA
Subject: Re: Clayton Waiver Request(Document link: CECILIA MOORE)

cecilia, i signed this waiver this afternoon, and faxed to you, terry and sean K. - tom

Cecilia Moore
07/22/02 11:11 AM
To: Thomas Valentino/DC/USEPA/US@EPA
cc: Terry Smith/DC/USEPA/US@EPA, minnichl@dyncorp.com
Subject: Clayton Waiver Request

Tom:

Attached is the waiver request and additional documentation from Clayton for the case Mike Johnson discussed with you last week. Please let me know if you have any questions. Thanks.

Cecilia
(See attached file: cltynwvr.72202.wpd)(See attached file: 30721.doc)

From: "Rogers, Holly" <Holly.Rogers@dyncorp.com>
To: "Erica Yates (E-mail)" <eyates@claytongrp.com>, "K...
Date: Mon, Jul 29, 2002 3:34 PM
Subject: Region 05 | Case 30721 | Lab CLAYTN | Issue Sample Condition | FINAL

Erica,

Below is the resolution from Region 5 regarding the matrix and pH issues for Case 30721. Per the Region, the lab should list the samples as soil samples, not waste samples. Also, the lab will have to contact their CLP PO for a waiver request for the pH issue to avoid CCS defects.

Please let me know if you have any other questions or problems.

Thanks,
Holly

Holly Rogers
DynCorp Systems and Solutions, LLC
CLP Coordinator for Regions 3 & 9
703-264-9526
holly.rogers@dyncorp.com

-----Original Message-----
From: Moore.Cecilia@epamail.epa.gov
[mailto:Moore.Cecilia@epamail.epa.gov]
Sent: Monday, July 29, 2002 2:04 PM
To: Rogers, Holly
Cc: kcoonan@claytongrp.com
Subject: Re: Region 05 | Case 30721 | Lab CLAYTN | Issue Multiple

Holly:

Please have the lab list the samples as soil and have the lab submit a waiver request for the pH issue. Thanks.

Cecilia

From: "Rogers, Holly"<Holly.Rogers@dyncorp.com>

To: Cecilia Moore/R5/USEPA/US@EPA
cc:
Subject: Region 05 | Case 30721 | Lab CLAYTN | Issue Multiple

07/29/02 11:29 AM

Cecilia,

I spoke with SMO CCS regarding this issue and I was informed that the lab will have to submit a waiver request for the pH issue. Also, CCS informed me that, because of a problem with the electronic deliverable, the lab does not have the option to list "waste" as a matrix for the samples for this Case. The only options for matrix for CLP samples is soil or water. This information can be found in the OLM04.2 SOW in exhibit H, page H-14. Please let me know how the Region would like to proceed and I will contact

the lab.

Thanks,
Holly

Holly Rogers
DynCorp Systems and Solutions, LLC
CLP Coordinator for Regions 3 & 9
703-264-9526
holly.rogers@dyncorp.com

-----Original Message-----
From: Moore.Cecilia@epamail.epa.gov
[mailto:Moore.Cecilia@epamail.epa.gov]
Sent: Monday, July 29, 2002 11:18 AM
To: Rogers, Holly
Cc: eyates@claytongrp.com; Brown, Jessica; Kcoonan@claytongrp.com
Subject: Re: Region 05 | Case 30721 | Lab CLAYTN | Issue Multiple

Holly:

I sent an e-mail to Karen this morning directing her to list the samples as waste and note the pH problem in the narrative. Do I need to submit a new waiver request to have CCS defects removed for the lack of pH? Please advise. Thanks.

Cecilia

From: "Rogers, Holly"<Holly.Rogers@dyncorp.com>
To: Cecilia Moore/R5/USEPA/US@EPA, "Erica Yates (E-mail)" <eyates@claytongrp.com>, "Karen Coonan (E-mail)" <Kcoonan@claytongrp.com>
cc: "Brown, Jessica" <Jessica.Brown@dyncorp.com>
Subject: Region 05 | Case 30721 | Lab CLAYTN | Issue Multiple
07/29/02 09:35 AM

Karen and Cecilia,

This is Holly Rogers. Since this Case is so complicated, Jessica asked that I follow up with the lab and the Region.

Would you please forward the Region's response to the issues below?

Thanks,
Holly

Holly Rogers
DynCorp Systems and Solutions, LLC
CLP Coordinator for Regions 3 & 9
703-264-9526
holly.rogers@dyncorp.com

-----Original Message-----
From: Brown, Jessica
Sent: Monday, July 29, 2002 10:30 AM
To: Rogers, Holly
Subject: RE: Case 30721

Do you know what is going on w/this?

-----Original Message-----
From: Rogers, Holly
Sent: Friday, July 26, 2002 4:03 PM
To: Brown, Jessica; Minnich, Loren
Subject: FW: Case 30721

FYI -- This is more on Case 30721 for CLAYTN with the garbage samples. The lab sent the email to Cecilia Moore (their CLP PO).

Holly Rogers
DynCorp Systems and Solutions, LLC
CLP Coordinator for Regions 3 & 9
703-264-9526
holly.rogers@dyncorp.com

-----Original Message-----
From: Karen Coonan [mailto:KCoonan@claytongrp.com]
Sent: Friday, July 26, 2002 3:45 PM
To: Rogers, Holly; moore.cecilia@epa.gov
Subject: Case 30721

Hi Cecilia,

Case 30721 is the case that was all waste samples. I was just notified by the laboratory that pH's could not be done on several of these samples. This was due to matrix - either because of the strong odors (health concerns) or due to the type of waste that the samples were (ie - tar, grease, etc.)

The samples that we were not able to do the pH's: E21K0, E21K2, E21K3, E21K5, E21K6, E21K8, E21K9, E21L3, E21L4, E21L6, E21L7, E21M1.

(pH's were done on nine samples.)

I also had a question regarding the narrative. On the first page of our narrative, we are to list each sample, the matrix and the analysis. For matrix, we have always put either aqueous or soil. For these samples should I list soil (this is what was on scheduling form) or should I list waste (since this is more the type of matrix)?

Karen Coonan
Clayton Group Services
CLP Project Manager
(248) 344-2671
kcoonan@claytongrp.com

CC: "Cecilia Moore (E-mail)" <moore.cecilia@epa.gov>, ...

2B

SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Clayton Group Services Contract: 68-W-99-069

Lab Code: CLAYTN Case No.: 30721 SAS No.: _____ SDG No.: E21M0

Level: (low/med) MED

	EPA SAMPLE NO.	SMC1 (TOL) #	SMC2 (BFB) #	SMC3 (DCE) #	OTHER	TOT OUT
01	VBLKKJ	98	94	97		0
02	E21M0	92	92	100		0
03	E21M0MS	100	92	100		0
04	E21M1	98	102	98		0
05	E21M0MSD	100	100	100		0
06	VHBLKKA	95	90	102		0

			QC Limit
SMC1	(TOL)	= Toluene-d8	(84-138)
SMC2	(BFB)	= Bromofluorobenzene	(59-113)
SMC3	(DCE)	= 1,2-Dichloroethane-d4	(70-121)

Column to be used to flag recovery values

* Values outside of contract required QC limits

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Clayton Group Services Contract: 68-W-99-069

Lab Code: CLAYTN Case No.: 30721 SAS No.: _____ SDG No.: E21M0

Matrix Spike - EPA Sample No.: E21M0 Level: (low/med) MED

COMPOUND	SPIKE ADDED (µg/Kg)	SAMPLE CONCENTRATION (µg/Kg)	MS CONCENTRATION (µg/Kg)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	1300000	0	1400000	108	59-172
Trichloroethene	1300000	0	1400000	108	62-137
Benzene	1300000	120000	1600000	114	66-142
Toluene	1300000	110000	1500000	107	59-139
Chlorobenzene	1300000	630000	2100000	113	60-133

COMPOUND	SPIKE ADDED (µg/Kg)	MSD CONCENTRATION (µg/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	1300000	1300000	100	8	22	59-172
Trichloroethene	1300000	1200000	92	16	24	62-137
Benzene	1300000	1400000	98	15	21	66-142
Toluene	1300000	1500000	107	0	21	59-139
Chlorobenzene	1300000	2000000	105	7	21	60-133

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits

Spike Recovery: 0 out of 10 outside limits

COMMENTS: _____

EPA SAMPLE NO.

VBLKKJ

VOLATILE METHOD BLANK SUMMARY

Lab Name: Clayton Group Services Contract: 68-W-99-069

Lab Code: CLAYTN Case No.: 30721 SAS No.: _____ SDG No.: E21M0

Lab File ID: K6765.D Lab Sample ID: 02070441-004A

Date Analyzed: 07/19/02 Time Analyzed: 15:43

GC Column: DB-VRX ID: 0.25 (mm) Heated Purge: (Y/N) N

Instrument ID: MS HP11K

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	E21M0	02070441-001A	K6766.D	16:17
02	E21M0MS	02070441-001D	K6767.D	16:51
03	E21M1	02070441-002A	K6769.D	18:00
04	E21M0MSD	02070441-001E	K6775.D	21:38
05	VHBLKKA	02070441-003A	K6776.D	22:20

COMMENTS: _____

_____

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E21M0

Lab Name: Clayton Group Services Contract: 68-W-99-069

Lab Code: CLAYTN Case No.: 30721 SAS No.: _____ SDG No.: E21M0

Matrix: (soil/water) SOIL Lab Sample ID: 02070441-001A

Sample wt/vol: 4 (g/mL) G Lab File ID: K6766.D

Level: (low/med) MED Date Received: 07/17/02

% Moisture: not dec. Date Analyzed: 07/19/02

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.00

Soil Extract Volume: 10000 (µL) Soil Aliquot Volume 0.5 (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	250000	U
74-87-3	Chloromethane	250000	U
75-01-4	Vinyl Chloride	250000	U
74-83-9	Bromomethane	250000	U
75-00-3	Chloroethane	250000	U
75-69-4	Trichlorofluoromethane	250000	U
75-35-4	1,1-Dichloroethene	250000	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	250000	U
67-64-1	Acetone	~~250000~~ ~~46000~~ 46000	BJ
75-15-0	Carbon Disulfide	250000	U
79-20-9	Methyl Acetate	250000	U
75-09-2	Methylene Chloride	250000	U
156-60-5	trans-1,2-Dichloroethene	250000	U
1634-04-4	Methyl tert-Butyl Ether	250000	U
75-34-3	1,1-Dichloroethane	250000	U
156-59-2	cis-1,2-Dichloroethene	250000	U
78-93-3	2-Butanone	250000	U
67-66-3	Chloroform	250000	U
71-55-6	1,1,1-Trichloroethane	250000	U
110-82-7	Cyclohexane	250000	U
56-23-5	Carbon Tetrachloride	250000	U
71-43-2	Benzene	120000	J
107-06-2	1,2-Dichloroethane	250000	U

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E21M0

Lab Name: Clayton Group Services Contract: 68-W-99-069

Lab Code: CLAYTN Case No.: 30721 SAS No.: _____ SDG No.: E21M0

Matrix: (soil/water) SOIL Lab Sample ID: 02070441-001A

Sample wt/vol: 4 (g/mL) G Lab File ID: K6766.D

Level: (low/med) MED Date Received: 07/17/02

% Moisture: not dec. Date Analyzed: 07/19/02

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.00

Soil Extract Volume: 10000 (µL) Soil Aliquot Volume 0.5 (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/KG	Q
79-01-6	Trichloroethene	250000	U
108-87-2	Methylcyclohexane	250000	U
78-87-5	1,2-Dichloropropane	250000	U
75-27-4	Bromodichloromethane	250000	U
10061-01-5	cis-1,3-Dichloropropene	250000	U
108-10-1	4-Methyl-2-pentanone	250000	U
108-88-3	Toluene	110000	J
10061-02-6	trans-1,3-Dichloropropene	250000	U
79-00-5	1,1,2-Trichloroethane	250000	U
127-18-4	Tetrachloroethene	250000	U
591-78-6	2-Hexanone	250000	U
124-48-1	Dibromochloromethane	250000	U
106-93-4	1,2-Dibromoethane	250000	U
108-90-7	Chlorobenzene	630000	
100-41-4	Ethylbenzene	250000	U
1330-20-7	Xylene (total)	250000	U
100-42-5	Styrene	250000	U
75-25-2	Bromoform	250000	U
98-82-8	Isopropylbenzene	250000	U
79-34-5	1,1,2,2-Tetrachloroethane	250000	U
541-73-1	1,3-Dichlorobenzene	27000	J
106-46-7	1,4-Dichlorobenzene	2000000	
95-50-1	1,2-Dichlorobenzene	370000	
96-12-8	1,2-Dibromo-3-chloropropane	250000	U
120-82-1	1,2,4-Trichlorobenzene	320000	B

1F

EPA SAMPLE NO.

E21M0

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Clayton Group Services Contract: 68-W-99-069

Lab Code: CLAYTN Case No.: 30721 SAS No.: _____ SDG No.: E21M0

Matrix: (soil/water) SOIL Lab Sample ID: 02070441-001A

Sample wt/vol: 4 (g/mL) G Lab File ID: K6766.D

Level: (low/med) MED Date Received: 07/17/02

% Moisture: not dec. Date Analyzed: 07/19/02

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.00

Soil Extract Volume: 10000 (µl) Soil Aliquot Volume: 0.5 (µL)

CONCENTRATION UNITS:

Number TICs found: 1 (µg/L or µg/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q
1.	000087-61-6	Benzene, 1,2,3-trichloro-	21.63	260000	NJ

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E21M0MS

Lab Name: Clayton Group Services Contract: 68-W-99-069

Lab Code: CLAYTN Case No.: 30721 SAS No.: _____ SDG No.: E21M0

Matrix: (soil/water) SOIL Lab Sample ID: 02070441-001D

Sample wt/vol: 4 (g/mL) G Lab File ID: K6767.D

Level: (low/med) MED Date Received: 07/17/02

% Moisture: not dec. Date Analyzed: 07/19/02

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.00

Soil Extract Volume: 10000 (µL) Soil Aliquot Volume 0.5 (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	250000	U
74-87-3	Chloromethane	250000	U
75-01-4	Vinyl Chloride	250000	U
74-83-9	Bromomethane	250000	U
75-00-3	Chloroethane	250000	U
75-69-4	Trichlorofluoromethane	250000	U
75-35-4	1,1-Dichloroethene	1400000	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	250000	U
67-64-1	Acetone	~~250000~~ 81000 81000	BJ ~~U~~
75-15-0	Carbon Disulfide	250000	U
79-20-9	Methyl Acetate	250000	U
75-09-2	Methylene Chloride	250000	U
156-60-5	trans-1,2-Dichloroethene	250000	U
1634-04-4	Methyl tert-Butyl Ether	250000	U
75-34-3	1,1-Dichloroethane	250000	U
156-59-2	cis-1,2-Dichloroethene	250000	U
78-93-3	2-Butanone	30000	J
67-66-3	Chloroform	250000	U
71-55-6	1,1,1-Trichloroethane	250000	U
110-82-7	Cyclohexane	250000	U
56-23-5	Carbon Tetrachloride	250000	U
71-43-2	Benzene	1600000	
107-06-2	1,2-Dichloroethane	250000	U

8/5/02

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E21M0MS

Lab Name: Clayton Group Services Contract: 68-W-99-069

Lab Code: CLAYTN Case No.: 30721 SAS No.: _____ SDG No.: E21M0

Matrix: (soil/water) SOIL Lab Sample ID: 02070441-001D

Sample wt/vol: 4 (g/mL) G Lab File ID: K6767.D

Level: (low/med) MED Date Received: 07/17/02

% Moisture: not dec. Date Analyzed: 07/19/02

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.00

Soil Extract Volume: 10000 (µL) Soil Aliquot Volume 0.5 (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/KG	Q
79-01-6	Trichloroethene	1400000	
108-87-2	Methylcyclohexane	250000	U
78-87-5	1,2-Dichloropropane	250000	U
75-27-4	Bromodichloromethane	250000	U
10061-01-5	cis-1,3-Dichloropropene	250000	U
108-10-1	4-Methyl-2-pentanone	250000	U
108-88-3	Toluene	1500000	
10061-02-6	trans-1,3-Dichloropropene	250000	U
79-00-5	1,1,2-Trichloroethane	250000	U
127-18-4	Tetrachloroethene	250000	U
591-78-6	2-Hexanone	250000	U
124-48-1	Dibromochloromethane	250000	U
106-93-4	1,2-Dibromoethane	250000	U
108-90-7	Chlorobenzene	2100000	
100-41-4	Ethylbenzene	250000	U
1330-20-7	Xylene (total)	250000	U
100-42-5	Styrene	250000	U
75-25-2	Bromoform	250000	U
98-82-8	Isopropylbenzene	250000	U
79-34-5	1,1,2,2-Tetrachloroethane	250000	U
541-73-1	1,3-Dichlorobenzene	63000	J
106-46-7	1,4-Dichlorobenzene	1800000	
95-50-1	1,2-Dichlorobenzene	360000	
96-12-8	1,2-Dibromo-3-chloropropane	250000	U
120-82-1	1,2,4-Trichlorobenzene	320000	B

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E21M0MSD

Lab Name: Clayton Group Services Contract: 68-W-99-069

Lab Code: CLAYTN Case No.: 30721 SAS No.: _____ SDG No.: E21M0

Matrix: (soil/water) SOIL Lab Sample ID: 02070441-001E

Sample wt/vol: 4 (g/mL) G Lab File ID: K6775.D

Level: (low/med) MED Date Received: 07/17/02

% Moisture: not dec. Date Analyzed: 07/19/02

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.00

Soil Extract Volume: 10000 (µL) Soil Aliquot Volume 0.5 (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	250000	U
74-87-3	Chloromethane	250000	U
75-01-4	Vinyl Chloride	250000	U
74-83-9	Bromomethane	250000	U
75-00-3	Chloroethane	250000	U
75-69-4	Trichlorofluoromethane	250000	U
75-35-4	1,1-Dichloroethene	1300000	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	250000	U
67-64-1	Acetone	~~250000~~ ~~71000~~ 71000	BJ
75-15-0	Carbon Disulfide	250000	U
79-20-9	Methyl Acetate	250000	U
75-09-2	Methylene Chloride	250000	U
156-60-5	trans-1,2-Dichloroethene	250000	U
1634-04-4	Methyl tert-Butyl Ether	250000	U
75-34-3	1,1-Dichloroethane	250000	U
156-59-2	cis-1,2-Dichloroethene	250000	U
78-93-3	2-Butanone	250000	U
67-66-3	Chloroform	250000	U
71-55-6	1,1,1-Trichloroethane	250000	U
110-82-7	Cyclohexane	250000	U
56-23-5	Carbon Tetrachloride	250000	U
71-43-2	Benzene	1400000	
107-06-2	1,2-Dichloroethane	250000	U

RB 8/16/02

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E21M0MSD

Lab Name: Clayton Group Services Contract: 68-W-99-069

Lab Code: CLAYTN Case No.: 30721 SAS No.: _____ SDG No.: E21M0

Matrix: (soil/water) SOIL Lab Sample ID: 02070441-001E

Sample wt/vol: 4 (g/mL) G Lab File ID: K6775.D

Level: (low/med) MED Date Received: 07/17/02

% Moisture: not dec. Date Analyzed: 07/19/02

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.00

Soil Extract Volume: 10000 (µL) Soil Aliquot Volume 0.5 (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/KG	Q
79-01-6	Trichloroethene	1200000	
108-87-2	Methylcyclohexane	250000	U
78-87-5	1,2-Dichloropropane	250000	U
75-27-4	Bromodichloromethane	250000	U
10061-01-5	cis-1,3-Dichloropropene	250000	U
108-10-1	4-Methyl-2-pentanone	250000	U
108-88-3	Toluene	1500000	
10061-02-6	trans-1,3-Dichloropropene	250000	U
79-00-5	1,1,2-Trichloroethane	250000	U
127-18-4	Tetrachloroethene	250000	U
591-78-6	2-Hexanone	250000	U
124-48-1	Dibromochloromethane	250000	U
106-93-4	1,2-Dibromoethane	250000	U
108-90-7	Chlorobenzene	2000000	
100-41-4	Ethylbenzene	250000	U
1330-20-7	Xylene (total)	250000	U
100-42-5	Styrene	250000	U
75-25-2	Bromoform	250000	U
98-82-8	Isopropylbenzene	250000	U
79-34-5	1,1,2,2-Tetrachloroethane	250000	U
541-73-1	1,3-Dichlorobenzene	29000	J
106-46-7	1,4-Dichlorobenzene	2000000	
95-50-1	1,2-Dichlorobenzene	380000	
96-12-8	1,2-Dibromo-3-chloropropane	250000	U
120-82-1	1,2,4-Trichlorobenzene	310000	B

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E21M1

Lab Name: Clayton Group Services Contract: 68-W-99-069

Lab Code: CLAYTN Case No.: 30721 SAS No.: _____ SDG No.: E21M0

Matrix: (soil/water) SOIL Lab Sample ID: 02070441-002A

Sample wt/vol: 4 (g/mL) G Lab File ID: K6769.D

Level: (low/med) MED Date Received: 07/17/02

% Moisture: not dec. Date Analyzed: 07/19/02

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.00

Soil Extract Volume: 10000 (µL) Soil Aliquot Volume 1 (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	130000	U
74-87-3	Chloromethane	130000	U
75-01-4	Vinyl Chloride	130000	U
74-83-9	Bromomethane	130000	U
75-00-3	Chloroethane	130000	U
75-69-4	Trichlorofluoromethane	130000	U
75-35-4	1,1-Dichloroethene	130000	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	130000	U
67-64-1	Acetone	~~130000~~ ~~34000~~ 34000	BJ
75-15-0	Carbon Disulfide	130000	U
79-20-9	Methyl Acetate	130000	U
75-09-2	Methylene Chloride	130000	U
156-60-5	trans-1,2-Dichloroethene	130000	U
1634-04-4	Methyl tert-Butyl Ether	130000	U
75-34-3	1,1-Dichloroethane	130000	U
156-59-2	cis-1,2-Dichloroethene	130000	U
78-93-3	2-Butanone	130000	U
67-66-3	Chloroform	130000	U
71-55-6	1,1,1-Trichloroethane	130000	U
110-82-7	Cyclohexane	130000	U
56-23-5	Carbon Tetrachloride	130000	U
71-43-2	Benzene	520000	
107-06-2	1,2-Dichloroethane	130000	U

8/3/02

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E21M1

Lab Name: Clayton Group Services Contract: 68-W-99-069

Lab Code: CLAYTN Case No.: 30721 SAS No.: _____ SDG No.: E21M0

Matrix: (soil/water) SOIL Lab Sample ID: 02070441-002A

Sample wt/vol: 4 (g/mL) G Lab File ID: K6769.D

Level: (low/med) MED Date Received: 07/17/02

% Moisture: not dec. Date Analyzed: 07/19/02

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.00

Soil Extract Volume: 10000 (µL) Soil Aliquot Volume 1 (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/KG	Q
79-01-6	Trichloroethene	130000	U
108-87-2	Methylcyclohexane	130000	U
78-87-5	1,2-Dichloropropane	130000	U
75-27-4	Bromodichloromethane	130000	U
10061-01-5	cis-1,3-Dichloropropene	130000	U
108-10-1	4-Methyl-2-pentanone	130000	U
108-88-3	Toluene	460000	
10061-02-6	trans-1,3-Dichloropropene	130000	U
79-00-5	1,1,2-Trichloroethane	130000	U
127-18-4	Tetrachloroethene	57000	J
591-78-6	2-Hexanone	130000	U
124-48-1	Dibromochloromethane	130000	U
106-93-4	1,2-Dibromoethane	130000	U
108-90-7	Chlorobenzene	1600000	
100-41-4	Ethylbenzene	13000	J
1330-20-7	Xylene (total)	130000	U
100-42-5	Styrene	130000	U
75-25-2	Bromoform	130000	U
98-82-8	Isopropylbenzene	130000	U
79-34-5	1,1,2,2-Tetrachloroethane	130000	U
541-73-1	1,3-Dichlorobenzene	26000	J
106-46-7	1,4-Dichlorobenzene	330000	
95-50-1	1,2-Dichlorobenzene	130000	
96-12-8	1,2-Dibromo-3-chloropropane	130000	U
120-82-1	1,2,4-Trichlorobenzene	440000	B

1F

EPA SAMPLE NO.

E21M1

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Clayton Group Services Contract: 68-W-99-069

Lab Code: CLAYTN Case No.: 30721 SAS No.: _____ SDG No.: E21M0

Matrix: (soil/water) SOIL Lab Sample ID: 02070441-002A

Sample wt/vol: 4 (g/mL) G Lab File ID: K6769.D

Level: (low/med) MED Date Received: 07/17/02

% Moisture: not dec. Date Analyzed: 07/19/02

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.00

Soil Extract Volume: 10000 (µl) Soil Aliquot Volume: 1 (µL)

CONCENTRATION UNITS:

Number TICs found: 7 (µg/L or µg/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q
1.	Unknown (4.74)	4.74	64000	J
2. 000000-00-0	TRICYCLO(2.2.1.0(2,6))HEPTANE,	15.44	120000	NJ
3. 000080-56-8	.ALPHA.-PINENE, (-)-	15.62	100000	NJ
4. 000079-92-5	Camphene	16.08	520000	NJ
5. 000527-84-4	Benzene, 1-methyl-2-(1-methylet	17.56	400000	NJ
6. 000120-82-1	Benzene, 1,2,4-trichloro-	21.62	190000	NJ
7. 000634-66-2	Benzene, 1,2,3,4-tetrachloro-	23.48	140000	NJ

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKKJ

Lab Name: Clayton Group Services Contract: 68-W-99-069

Lab Code: CLAYTN Case No.: 30721 SAS No.: _____ SDG No.: E21M0

Matrix: (soil/water) SOIL Lab Sample ID: 02070441-004A

Sample wt/vol: 4 (g/mL) G Lab File ID: K6765.D

Level: (low/med) MED Date Received: 07/17/02

% Moisture: not dec. Date Analyzed: 07/19/02

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.00

Soil Extract Volume: 10000 (µL) Soil Aliquot Volume 100 (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	1300	U
74-87-3	Chloromethane	1300	U
75-01-4	Vinyl Chloride	1300	U
74-83-9	Bromomethane	1300	U
75-00-3	Chloroethane	1300	U
75-69-4	Trichlorofluoromethane	1300	U
75-35-4	1,1-Dichloroethene	1300	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1300	U
67-64-1	Acetone	270	J
75-15-0	Carbon Disulfide	1300	U
79-20-9	Methyl Acetate	1300	U
75-09-2	Methylene Chloride	1300	U
156-60-5	trans-1,2-Dichloroethene	1300	U
1634-04-4	Methyl tert-Butyl Ether	1300	U
75-34-3	1,1-Dichloroethane	1300	U
156-59-2	cis-1,2-Dichloroethene	1300	U
78-93-3	2-Butanone	1300	U
67-66-3	Chloroform	1300	U
71-55-6	1,1,1-Trichloroethane	1300	U
110-82-7	Cyclohexane	1300	U
56-23-5	Carbon Tetrachloride	1300	U
71-43-2	Benzene	1300	U
107-06-2	1,2-Dichloroethane	1300	U

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKKJ

Lab Name: Clayton Group Services Contract: 68-W-99-069

Lab Code: CLAYTN Case No.: 30721 SAS No.: _____ SDG No.: E21M0

Matrix: (soil/water) SOIL Lab Sample ID: 02070441-004A

Sample wt/vol: 4 (g/mL) G Lab File ID: K6765.D

Level: (low/med) MED Date Received: 07/17/02

% Moisture: not dec. Date Analyzed: 07/19/02

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.00

Soil Extract Volume: 10000 (µL) Soil Aliquot Volume 100 (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/KG	Q
79-01-6	Trichloroethene	1300	U
108-87-2	Methylcyclohexane	1300	U
78-87-5	1,2-Dichloropropane	1300	U
75-27-4	Bromodichloromethane	1300	U
10061-01-5	cis-1,3-Dichloropropene	1300	U
108-10-1	4-Methyl-2-pentanone	1300	U
108-88-3	Toluene	1300	U
10061-02-6	trans-1,3-Dichloropropene	1300	U
79-00-5	1,1,2-Trichloroethane	1300	U
127-18-4	Tetrachloroethene	1300	U
591-78-6	2-Hexanone	1300	U
124-48-1	Dibromochloromethane	1300	U
106-93-4	1,2-Dibromoethane	1300	U
108-90-7	Chlorobenzene	1300	U
100-41-4	Ethylbenzene	1300	U
1330-20-7	Xylene (total)	1300	U
100-42-5	Styrene	1300	U
75-25-2	Bromoform	1300	U
98-82-8	Isopropylbenzene	1300	U
79-34-5	1,1,2,2-Tetrachloroethane	1300	U
541-73-1	1,3-Dichlorobenzene	1300	U
106-46-7	1,4-Dichlorobenzene	1300	U
95-50-1	1,2-Dichlorobenzene	1300	U
96-12-8	1,2-Dibromo-3-chloropropane	1300	U
120-82-1	1,2,4-Trichlorobenzene	270	J

1F

EPA SAMPLE NO.

VBLKKJ

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Clayton Group Services Contract: 68-W-99-069

Lab Code: CLAYTN Case No.: 30721 SAS No.: _____ SDG No.: E21M0

Matrix: (soil/water) SOIL Lab Sample ID: 02070441-004A

Sample wt/vol: 4 (g/mL) G Lab File ID: K6765.D

Level: (low/med) MED Date Received: 07/17/02

% Moisture: not dec. Date Analyzed: 07/19/02

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.00

Soil Extract Volume: 10000 (µl) Soil Aliquot Volume: 100 (µL)

CONCENTRATION UNITS:

Number TICs found: 1 (µg/L or µg/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q
1.	Unknown (7.12)	7.12	750	J

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

VHBLKKA

Lab Name: Clayton Group Services Contract: 68-W-99-069

Lab Code: CLAYTN Case No.: 30721 SAS No.: _____ SDG No.: E21M0

Matrix: (soil/water) SOIL Lab Sample ID: 02070441-003A

Sample wt/vol: 4 (g/mL) G Lab File ID: K6776.D

Level: (low/med) MED Date Received: 07/17/02

% Moisture: not dec. Date Analyzed: 07/19/02

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.00

Soil Extract Volume: 10000 (µL) Soil Aliquot Volume 100 (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	1300	U
74-87-3	Chloromethane	1300	U
75-01-4	Vinyl Chloride	1300	U
74-83-9	Bromomethane	1300	U
75-00-3	Chloroethane	1300	U
75-69-4	Trichlorofluoromethane	1300	U
75-35-4	1,1-Dichloroethene	1300	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1300	U
67-64-1	Acetone	~~1300~~ ~~360~~ 1300	BJ
75-15-0	Carbon Disulfide	1300	U
79-20-9	Methyl Acetate	1300	U
75-09-2	Methylene Chloride	1300	U
156-60-5	trans-1,2-Dichloroethene	1300	U
1634-04-4	Methyl tert-Butyl Ether	1300	U
75-34-3	1,1-Dichloroethane	1300	U
156-59-2	cis-1,2-Dichloroethene	1300	U
78-93-3	2-Butanone	1300	U
67-66-3	Chloroform	1300	U
71-55-6	1,1,1-Trichloroethane	1300	U
110-82-7	Cyclohexane	1300	U
56-23-5	Carbon Tetrachloride	1300	U
71-43-2	Benzene	1300	U
107-06-2	1,2-Dichloroethane	1300	U

RB 8/16/02

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VHBLKKA

Lab Name: Clayton Group Services Contract: 68-W-99-069

Lab Code: CLAYTN Case No.: 30721 SAS No.: _____ SDG No.: E21M0

Matrix: (soil/water) SOIL Lab Sample ID: 02070441-003A

Sample wt/vol: 4 (g/mL) G Lab File ID: K6776.D

Level: (low/med) MED Date Received: 07/17/02

% Moisture: not dec. Date Analyzed: 07/19/02

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.00

Soil Extract Volume: 10000 (µL) Soil Aliquot Volume 100 (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/KG	Q
79-01-6	Trichloroethene	1300	U
108-87-2	Methylcyclohexane	1300	U
78-87-5	1,2-Dichloropropane	1300	U
75-27-4	Bromodichloromethane	1300	U
10061-01-5	cis-1,3-Dichloropropene	1300	U
108-10-1	4-Methyl-2-pentanone	1300	U
108-88-3	Toluene	1300	U
10061-02-6	trans-1,3-Dichloropropene	1300	U
79-00-5	1,1,2-Trichloroethane	1300	U
127-18-4	Tetrachloroethene	1300	U
591-78-6	2-Hexanone	1300	U
124-48-1	Dibromochloromethane	1300	U
106-93-4	1,2-Dibromoethane	1300	U
108-90-7	Chlorobenzene	1300	U
100-41-4	Ethylbenzene	1300	U
1330-20-7	Xylene (total)	1300	U
100-42-5	Styrene	1300	U
75-25-2	Bromoform	1300	U
98-82-8	Isopropylbenzene	1300	U
79-34-5	1,1,2,2-Tetrachloroethane	1300	U
541-73-1	1,3-Dichlorobenzene	540	J
106-46-7	1,4-Dichlorobenzene	250	J
95-50-1	1,2-Dichlorobenzene	1300	U
96-12-8	1,2-Dibromo-3-chloropropane	1300	U
120-82-1	1,2,4-Trichlorobenzene	1300 ~~280~~	BJ

8/5/02

1F

EPA SAMPLE NO.

VHBLKKA

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Clayton Group Services Contract: 68-W-99-069

Lab Code: CLAYTN Case No.: 30721 SAS No.: _____ SDG No.: E21M0

Matrix: (soil/water) SOIL Lab Sample ID: 02070441-003A

Sample wt/vol: 4 (g/mL) G Lab File ID: K6776.D

Level: (low/med) MED Date Received: 07/17/02

% Moisture: not dec. Date Analyzed: 07/19/02

GC Column: DB-VRX ID: 0.25 (mm) Dilution Factor: 1.00

Soil Extract Volume: 10000 (µl) Soil Aliquot Volume: 100 (µL)

CONCENTRATION UNITS:

Number TICs found: 1 (µg/L or µg/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q
1.	Unknown (4.74)	4.74	650	J

2D

SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: Clayton Group Services Contract: 68-W-99-069

Lab Code: CLAYTN Case No.: 30721 SAS No.: _____ SDG No.: E21M0

Level: (low/med) MED

	EPA SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	S4 (PHL) #	S5 (2FP) #	S6 (TBP) #	S7 (2CP) #	S8 (DCB) #	TOT OUT
01	SBLKS1	68	70	92	71	72	88	73	72	0
02	E21M1	38	36	46	40	31	53	36	30	0
03	E21M0	60	54	52	61	55	44	57	56	0
04	E21M0MS	46	44	52	49	43	75	47	42	0
05	E21M0MSD	56	52	64	60	51	77	57	60	0
06	E21M1DL	34	38	46	39	28	29	35	30	0

			QC LIMITS	
S1	(NBZ)	= Nitrobenzene-d5	(23-120)	
S2	(FBP)	= 2-Fluorobiphenyl	(30-115)	
S3	(TPH)	= Terphenyl-d14	(18-137)	
S4	(PHL)	= Phenol-d5	(24-113)	
S5	(2FP)	= 2-Fluorophenol	(25-121)	
S6	(TBP)	= 2,4,6-Tribromophenol	(19-122)	
S7	(2CP)	= 2-Chlorophenol-d4	(20-130)	(advisory)
S8	(DCB)	= 1,2-Dichlorobenzene-d4	(20-130)	(advisory)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogate diluted out

3D

SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Clayton Group Services Contract: 68-W-99-069

Lab Code: CLAYTN Case No.: 30721 SAS No.: SDG No.: E21M0

Matrix Spike - EPA Sample No.: E21M0 Level: (low/med) MED

COMPOUND	SPIKE ADDED (µg/Kg)	SAMPLE CONCENTRATION (µg/Kg)	MS CONCENTRATION (µg/Kg)	MS % REC #	QC. LIMITS REC.
Phenol	75000	4100	41000	49	26-90
2-Chlorophenol	75000	0	34000	45	25-102
N-Nitroso-di-n-propylamine	50000	0	24000	48	41-126
4-Chloro-3-methylphenol	75000	0	39000	52	26-103
Acenaphthene	50000	0	27000	54	31-137
4-Nitrophenol	75000	0	26000	35	11-114
2,4-Dinitrotoluene	50000	0	24000	48	28-89
Pentachlorophenol	75000	0	67000	89	17-109
Pyrene	50000	2200	30000	56	35-142

COMPOUND	SPIKE ADDED (µg/Kg)	MSD CONCENTRATION (µg/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	75000	48000	59	19	35	26-90
2-Chlorophenol	75000	42000	56	22	50	25-102
N-Nitroso-di-n-propylamine	50000	29000	58	19	38	41-126
4-Chloro-3-methylphenol	75000	47000	63	19	33	26-103
Acenaphthene	50000	31000	62	14	19	31-137
4-Nitrophenol	75000	28000	37	6	50	11-114
2,4-Dinitrotoluene	50000	27000	54	12	47	28-89
Pentachlorophenol	75000	56000	75	17	47	17-109
Pyrene	50000	36000	68	19	36	35-142

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 9 outside limits

Spike Recovery: 0 out of 18 outside limits

COMMENTS:

4B

EPA SAMPLE NO.

SEMIVOLATILE METHOD BLANK SUMMARY

SBLKS1

Lab Name: Clayton Group Services Contract: 68-W-99-069

Lab Code: CLAYTN Case No.: 30721 SAS No.: _____ SDG No.: E21M0

Lab File ID: I8367.D Lab Sample ID: 02070441-005A

Instrument ID: MS_HP9I Date Extracted: 07/22/02

Matrix: (soil/water) SOIL Date Analyzed: 07/24/02

Level: (low/med) MED Time Analyzed: 16:26

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
1	E21M1	02070441-002B	I8369.D	07/24/02
2	E21M0	02070441-001B	I8371.D	07/24/02
3	E21M0MS	02070441-001F	I8372.D	07/24/02
4	E21M0MSD	02070441-001G	I8373.D	07/24/02
5	E21M1DL	02070441-002B	I8375.D	07/24/02

COMMENTS: _____

_____

1D

EPA SAMPLE NO.

E21M0

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Clayton Group Services Contract: 68-W-99-069

Lab Code: CLAYTN Case No.: 30721 SAS No.: _____ SDG No.: E21M0

Matrix: (soil/water) SOIL Lab Sample ID: 02070441-001B

Sample wt/vol: 1 (g/mL) G Lab File ID: I8371.D

Level: (low/med) MED Date Received: 07/17/02

% Moisture: 0 Decanted: (Y/N) N Date Extracted: 07/22/02

Concentrated Extract Volume: 500 (µL) Date Analyzed: 07/24/02

Injection Volume: 2 (µL) Dilution Factor: 5.00

GPC Cleanup: (Y/N) N pH: 7.6 Extraction: (Type) SONC

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/KG	Q
100-52-7	Benzaldehyde	2300	J
108-95-2	Phenol	4100	J
111-44-4	bis(2-Chloroethyl)ether	25000	U
95-57-8	2-Chlorophenol	25000	U
95-48-7	2-Methylphenol	2500	J
108-60-1	2,2´-oxybis(1-Chloropropane)	25000	U
98-86-2	Acetophenone	1700	J
106-44-5	4-Methylphenol	25000	U
621-64-7	N-Nitroso-di-n-propylamine	25000	U
67-72-1	Hexachloroethane	25000	U
98-95-3	Nitrobenzene	25000	U
78-59-1	Isophorone	25000	U
88-75-5	2-Nitrophenol	25000	U
105-67-9	2,4-Dimethylphenol	25000	U
111-91-1	bis(2-Chloroethoxy)methane	25000	U
120-83-2	2,4-Dichlorophenol	2900	J
91-20-3	Naphthalene	48000	
106-47-8	4-Chloroaniline	2900	J
87-68-3	Hexachlorobutadiene	5100	J
105-60-2	Caprolactam	25000	U
59-50-7	4-Chloro-3-methylphenol	25000	U
91-57-6	2-Methylnaphthalene	3800	J
77-47-4	Hexachlorocyclopentadiene	25000	U
88-06-2	2,4,6-Trichlorophenol	7900	J
95-95-4	2,4,5-Trichlorophenol	62000	U
92-52-4	1,1´-Biphenyl	100000	
91-58-7	2-Chloronaphthalene	25000	U
88-74-4	2-Nitroaniline	62000	U
131-11-3	Dimethylphthalate	12000	J
606-20-2	2,6-Dinitrotoluene	25000	U
208-96-8	Acenaphthylene	25000	U
99-09-2	3-Nitroaniline	62000	U
83-32-9	Acenaphthene	25000	U

EPA SAMPLE NO.

E21M0

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Clayton Group Services Contract: 68-W-99-069

Lab Code: CLAYTN Case No.: 30721 SAS No.: _____ SDG No.: E21M0

Matrix: (soil/water) SOIL Lab Sample ID: 02070441-001B

Sample wt/vol: 1 (g/mL) G Lab File ID: I8371.D

Level: (low/med) MED Date Received: 07/17/02

% Moisture: 0 Decanted: (Y/N) N Date Extracted: 07/22/02

Concentrated Extract Volume: 500 (µL) Date Analyzed: 07/24/02

Injection Volume: 2 (µL) Dilution Factor: 5.00

GPC Cleanup: (Y/N) N pH: 7.6 Extraction: (Type) SONC

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	62000	U
100-02-7	4-Nitrophenol	62000	U
132-64-9	Dibenzofuran	3600	J
121-14-2	2,4-Dinitrotoluene	25000	U
84-66-2	Diethylphthalate	25000	U
86-73-7	Fluorene	4100	J
7005-72-3	4-Chlorophenyl-phenylether	25000	U
100-01-6	4-Nitroaniline	62000	U
534-52-1	4,6-Dinitro-2-methylphenol	62000	U
86-30-6	N-Nitrosodiphenylamine (1)	25000	U
101-55-3	4-Bromophenyl-phenylether	25000	U
118-74-1	Hexachlorobenzene	1800	J
1912-24-9	Atrazine	25000	U
87-86-5	Pentachlorophenol	62000	U
85-01-8	Phenanthrene	8900	J
120-12-7	Anthracene	2400	J
86-74-8	Carbazole	4800	J
84-74-2	Di-n-butylphthalate	4200	J
206-44-0	Fluoranthene	2500	J
129-00-0	Pyrene	2200	J
85-68-7	Butylbenzylphthalate	25000	U
91-94-1	3,3'-Dichlorobenzidine	25000	U
56-55-3	Benzo(a)anthracene	25000	U
218-01-9	Chrysene	25000	U
117-81-7	bis(2-Ethylhexyl)phthalate	25000	U
117-84-0	Di-n-octylphthalate	25000	U
205-99-2	Benzo(b)fluoranthene	2500	J
207-08-9	Benzo(k)fluoranthene	25000	U
50-32-8	Benzo(a)pyrene	25000	U
193-39-5	Indeno(1,2,3-cd)pyrene	25000	U
53-70-3	Dibenzo(a,h)anthracene	25000	U
191-24-2	Benzo(g,h,i)perylene	25000	U

(1) Cannot be separated from Diphenylamine

1G

EPA SAMPLE NO.

E21M0

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Clayton Group Services Contract: 68-W-99-069

Lab Code: CLAYTN Case No.: 30721 SAS No.: _____ SDG No.: E21M0

Matrix: (soil/water) SOIL Lab Sample ID: 02070441-001B

Sample wt/vol: 1 (g/mL) G Lab File ID: I8371.D

Level: (low/med) MED Date Received: 07/17/02

% Moisture: 0 Decanted: (Y/N) N Date Extracted: 07/22/02

Concentrated Extract Volume: 500 (µl) Date Analyzed: 07/24/02

Injection Volume: 2 (µl) Dilution Factor: 5.00

GPC Cleanup: (Y/N) N pH: 7.6 Extraction: (Type) SONC

CONCENTRATION UNITS:

Number TICs found: 30 (µg/L or µg/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q
1.	000634-90-2	Benzene, 1,2,3,5-tetrachloro-	11.61	87000	NJ
2.	000634-66-2	Benzene, 1,2,3,4-tetrachloro-	12.25	310000	NJ
3.	000101-81-5	Benzene, 1,1'-methylenebis-	12.35	100000	NJ
4.	000120-51-4	Benzyl benzoate	15.80	130000	NJ
5.	032598-12-2	1,1'-Biphenyl, 2,4,4',6-tetrach	18.14	130000	NJ
6.	038380-03-9	1,1'-Biphenyl, 2,3,3',4',6-pent	18.43	150000	NJ
7.	031508-00-6	1,1'-Biphenyl, 2,3',4,4',5-pent	18.96	190000	NJ
8.	026601-64-9	1,1'-Biphenyl, hexachloro- (19.	19.28	400000	NJ
9.	035065-28-2	1,1'-Biphenyl, 2,2',3,4,4',5'-h	19.46	89000	NJ
10.	041411-62-5	1,1'-Biphenyl, 2,3,3',4,5,6-hex	19.56	320000	NJ
11.	026601-64-9	1,1'-Biphenyl, hexachloro- (19.	19.66	230000	NJ
12.	052712-04-6	1,1'-Biphenyl, 2,2',3,4,5,5'-he	19.73	88000	NJ
13.	052663-72-6	1,1'-Biphenyl, 2,3',4,4',5,5'-h	19.97	510000	NJ
14.	060145-23-5	1,1'-Biphenyl, 2,2',3,4,4',5,6'	20.15	120000	NJ
15.	052663-69-1	1,1'-Biphenyl, 2,2',3,4,4',5',6	20.24	78000	NJ
16.	026601-64-9	1,1'-Biphenyl, hexachloro- (20.	20.39	140000	NJ
17.	052663-67-9	1,1'-Biphenyl, 2,2',3,3',5,5',6	20.54	130000	NJ
18.	052663-72-6	1,1'-Biphenyl, 2,3',4,4',5,5'-h	20.71	670000	NJ
19.	038411-22-2	1,1'-Biphenyl, 2,2',3,3',6,6'-h	20.81	240000	NJ
20.	052663-65-7	1,1'-Biphenyl, 2,2',3,3',4,6,6'	20.95	1300000	NJ
21.		Unknown (21.44)	21.44	1300000	J
22.	060145-23-5	1,1'-Biphenyl, 2,2',3,4,4',5,6'	21.52	950000	NJ
23.	052663-75-9	1,1'-Biphenyl, 2,2',3,3',4,5,5'	21.62	200000	NJ
24.		Unknown (21.68)	21.68	350000	J
25.	002136-99-4	1,1'-Biphenyl, 2,2',3,3',5,5',6	21.74	270000	NJ
26.		Unknown (21.88)	21.88	140000	J
27.	074472-51-8	1,1'-Biphenyl, 2,3,3',4,5,5',6-	22.01	81000	NJ
28.		Unknown (22.33)	22.33	180000	J
29.	052663-78-2	1,1'-Biphenyl, 2,2',3,3',4,4',5	22.40	110000	NJ
30.		Unknown (22.77)	22.77	910000	J

1C

EPA SAMPLE NO.

E21M0MS

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Clayton Group Services Contract: 68-W-99-069

Lab Code: CLAYTN Case No.: 30721 SAS No.: _____ SDG No.: E21M0

Matrix: (soil/water) SOIL Lab Sample ID: 02070441-001F

Sample wt/vol: 1 (g/mL) G Lab File ID: I8372.D

Level: (low/med) MED Date Received: 07/17/02

% Moisture: 0 Decanted: (Y/N) N Date Extracted: 07/22/02

Concentrated Extract Volume: 500 (µL) Date Analyzed: 07/24/02

Injection Volume: 2 (µL) Dilution Factor: 5.00

GPC Cleanup: (Y/N) N pH: 7.6 Extraction: (Type) SONC

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/KG	Q
100-52-7	Benzaldehyde	3000	J
108-95-2	Phenol	41000	
111-44-4	bis(2-Chloroethyl)ether	25000	U
95-57-8	2-Chlorophenol	34000	
95-48-7	2-Methylphenol	2400	J
108-60-1	2,2´-oxybis(1-Chloropropane)	25000	U
98-86-2	Acetophenone	2100	J
106-44-5	4-Methylphenol	25000	U
621-64-7	N-Nitroso-di-n-propylamine	24000	J
67-72-1	Hexachloroethane	25000	U
98-95-3	Nitrobenzene	25000	U
78-59-1	Isophorone	25000	U
88-75-5	2-Nitrophenol	25000	U
105-67-9	2,4-Dimethylphenol	25000	U
111-91-1	bis(2-Chloroethoxy)methane	25000	U
120-83-2	2,4-Dichlorophenol	5600	J
91-20-3	Naphthalene	55000	
106-47-8	4-Chloroaniline	4500	J
87-68-3	Hexachlorobutadiene	3000	J
105-60-2	Caprolactam	25000	U
59-50-7	4-Chloro-3-methylphenol	39000	
91-57-6	2-Methylnaphthalene	4200	J
77-47-4	Hexachlorocyclopentadiene	25000	U
88-06-2	2,4,6-Trichlorophenol	14000	J
95-95-4	2,4,5-Trichlorophenol	62000	U
92-52-4	1,1´-Biphenyl	140000	
91-58-7	2-Chloronaphthalene	25000	U
88-74-4	2-Nitroaniline	62000	U
131-11-3	Dimethylphthalate	11000	J
606-20-2	2,6-Dinitrotoluene	25000	U
208-96-8	Acenaphthylene	25000	U
99-09-2	3-Nitroaniline	62000	U
83-32-9	Acenaphthene	27000	

1D

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

E21M0MS

Lab Name: Clayton Group Services Contract: 68-W-99-069

Lab Code: CLAYTN Case No.: 30721 SAS No.: _____ SDG No.: E21M0

Matrix: (soil/water) SOIL Lab Sample ID: 02070441-001F

Sample wt/vol: 1 (g/mL) G Lab File ID: I8372.D

Level: (low/med) MED Date Received: 07/17/02

% Moisture: 0 Decanted: (Y/N) N Date Extracted: 07/22/02

Concentrated Extract Volume: 500 (µL) Date Analyzed: 07/24/02

Injection Volume: 2 (µL) Dilution Factor: 5.00

GPC Cleanup: (Y/N) N pH: 7.6 Extraction: (Type) SONC

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	62000	U
100-02-7	4-Nitrophenol	26000	J
132-64-9	Dibenzofuran	5000	J
121-14-2	2,4-Dinitrotoluene	24000	J
84-66-2	Diethylphthalate	25000	U
86-73-7	Fluorene	5900	J
7005-72-3	4-Chlorophenyl-phenylether	25000	U
100-01-6	4-Nitroaniline	62000	U
534-52-1	4,6-Dinitro-2-methylphenol	62000	U
86-30-6	N-Nitrosodiphenylamine (1)	25000	U
101-55-3	4-Bromophenyl-phenylether	25000	U
118-74-1	Hexachlorobenzene	2000	J
1912-24-9	Atrazine	25000	U
87-86-5	Pentachlorophenol	67000	
85-01-8	Phenanthrene	11000	J
120-12-7	Anthracene	3100	J
86-74-8	Carbazole	5200	J
84-74-2	Di-n-butylphthalate	3400	J
206-44-0	Fluoranthene	2700	J
129-00-0	Pyrene	30000	
85-68-7	Butylbenzylphthalate	25000	U
91-94-1	3,3´-Dichlorobenzidine	25000	U
56-55-3	Benzo(a)anthracene	25000	U
218-01-9	Chrysene	25000	U
117-81-7	bis(2-Ethylhexyl)phthalate	25000	U
117-84-0	Di-n-octylphthalate	25000	U
205-99-2	Benzo(b)fluoranthene	1800	J
207-08-9	Benzo(k)fluoranthene	25000	U
50-32-8	Benzo(a)pyrene	25000	U
193-39-5	Indeno(1,2,3-cd)pyrene	25000	U
53-70-3	Dibenzo(a,h)anthracene	25000	U
191-24-2	Benzo(g,h,i)perylene	25000	U

(1) Cannot be separated from Diphenylamine

1C

EPA SAMPLE NO.

E21M0MSD

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Clayton Group Services Contract: 68-W-99-069

Lab Code: CLAYTN Case No.: 30721 SAS No.: _____ SDG No.: E21M0

Matrix: (soil/water) SOIL Lab Sample ID: 02070441-001G

Sample wt/vol: 1 (g/mL) G Lab File ID: I8373.D

Level: (low/med) MED Date Received: 07/17/02

% Moisture: 0 Decanted: (Y/N) N Date Extracted: 07/22/02

Concentrated Extract Volume: 500 (µL) Date Analyzed: 07/24/02

Injection Volume: 2 (µL) Dilution Factor: 5.00

GPC Cleanup: (Y/N) N pH: 7.6 Extraction: (Type) SONC

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/KG	Q
100-52-7	Benzaldehyde	4300	J
108-95-2	Phenol	48000	
111-44-4	bis(2-Chloroethyl)ether	25000	U
95-57-8	2-Chlorophenol	42000	
95-48-7	2-Methylphenol	2600	J
108-60-1	2,2´-oxybis(1-Chloropropane)	25000	U
98-86-2	Acetophenone	2100	J
106-44-5	4-Methylphenol	25000	U
621-64-7	N-Nitroso-di-n-propylamine	29000	
67-72-1	Hexachloroethane	25000	U
98-95-3	Nitrobenzene	25000	U
78-59-1	Isophorone	25000	U
88-75-5	2-Nitrophenol	25000	U
105-67-9	2,4-Dimethylphenol	25000	U
111-91-1	bis(2-Chloroethoxy)methane	25000	U
120-83-2	2,4-Dichlorophenol	5200	J
91-20-3	Naphthalene	55000	
106-47-8	4-Chloroaniline	3100	J
87-68-3	Hexachlorobutadiene	2800	J
105-60-2	Caprolactam	25000	U
59-50-7	4-Chloro-3-methylphenol	47000	
91-57-6	2-Methylnaphthalene	4900	J
77-47-4	Hexachlorocyclopentadiene	25000	U
88-06-2	2,4,6-Trichlorophenol	11000	J
95-95-4	2,4,5-Trichlorophenol	62000	U
92-52-4	1,1´-Biphenyl	140000	
91-58-7	2-Chloronaphthalene	25000	U
88-74-4	2-Nitroaniline	62000	U
131-11-3	Dimethylphthalate	91000	
606-20-2	2,6-Dinitrotoluene	25000	U
208-96-8	Acenaphthylene	25000	U
99-09-2	3-Nitroaniline	62000	U
83-32-9	Acenaphthene	31000	

1D

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

E21M0MSD

Lab Name: Clayton Group Services Contract: 68-W-99-069

Lab Code: CLAYTN Case No.: 30721 SAS No.: _____ SDG No.: E21M0

Matrix: (soil/water) SOIL Lab Sample ID: 02070441-001G

Sample wt/vol: 1 (g/mL) G Lab File ID: I8373.D

Level: (low/med) MED Date Received: 07/17/02

% Moisture: 0 Decanted: (Y/N) N Date Extracted: 07/22/02

Concentrated Extract Volume: 500 (µL) Date Analyzed: 07/24/02

Injection Volume: 2 (µL) Dilution Factor: 5.00

GPC Cleanup: (Y/N) N pH: 7.6 Extraction: (Type) SONC

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	62000	U
100-02-7	4-Nitrophenol	28000	J
132-64-9	Dibenzofuran	6800	J
121-14-2	2,4-Dinitrotoluene	27000	
84-66-2	Diethylphthalate	25000	U
86-73-7	Fluorene	4500	J
7005-72-3	4-Chlorophenyl-phenylether	25000	U
100-01-6	4-Nitroaniline	62000	U
534-52-1	4,6-Dinitro-2-methylphenol	62000	U
86-30-6	N-Nitrosodiphenylamine (1)	25000	U
101-55-3	4-Bromophenyl-phenylether	25000	U
118-74-1	Hexachlorobenzene	1500	J
1912-24-9	Atrazine	25000	U
87-86-5	Pentachlorophenol	56000	J
85-01-8	Phenanthrene	15000	J
120-12-7	Anthracene	3400	J
86-74-8	Carbazole	5200	J
84-74-2	Di-n-butylphthalate	4900	J
206-44-0	Fluoranthene	3100	J
129-00-0	Pyrene	36000	
85-68-7	Butylbenzylphthalate	25000	U
91-94-1	3,3´-Dichlorobenzidine	25000	U
56-55-3	Benzo(a)anthracene	25000	U
218-01-9	Chrysene	25000	U
117-81-7	bis(2-Ethylhexyl)phthalate	25000	U
117-84-0	Di-n-octylphthalate	25000	U
205-99-2	Benzo(b)fluoranthene	1300	J
207-08-9	Benzo(k)fluoranthene	25000	U
50-32-8	Benzo(a)pyrene	25000	U
193-39-5	Indeno(1,2,3-cd)pyrene	25000	U
53-70-3	Dibenzo(a,h)anthracene	25000	U
191-24-2	Benzo(g,h,i)perylene	25000	U

(1) Cannot be separated from Diphenylamine

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

E21M1

Lab Name: Clayton Group Services Contract: 68-W-99-069

Lab Code: CLAYTN Case No.: 30721 SAS No.: _____ SDG No.: E21M0

Matrix: (soil/water) SOIL Lab Sample ID: 02070441-002B

Sample wt/vol: 1 (g/mL) G Lab File ID: I8369.D

Level: (low/med) MED Date Received: 07/17/02

% Moisture: 0 Decanted: (Y/N) N Date Extracted: 07/22/02

Concentrated Extract Volume: 500 (µL) Date Analyzed: 07/24/02

Injection Volume: 2 (µL) Dilution Factor: 5.00

GPC Cleanup: (Y/N) N pH: 0.0 Extraction: (Type) SONC

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/KG	Q
100-52-7	Benzaldehyde	2500	J
108-95-2	Phenol	68000	
111-44-4	bis(2-Chloroethyl)ether	25000	U
95-57-8	2-Chlorophenol	1700	J
95-48-7	2-Methylphenol	1400	J
108-60-1	2,2´-oxybis(1-Chloropropane)	25000	U
98-86-2	Acetophenone	5500	J
106-44-5	4-Methylphenol	25000	U
621-64-7	N-Nitroso-di-n-propylamine	25000	U
67-72-1	Hexachloroethane	25000	U
98-95-3	Nitrobenzene	25000	U
78-59-1	Isophorone	25000	U
88-75-5	2-Nitrophenol	25000	U
105-67-9	2,4-Dimethylphenol	25000	U
111-91-1	bis(2-Chloroethoxy)methane	25000	U
120-83-2	2,4-Dichlorophenol	59000	
91-20-3	Naphthalene	160000	
106-47-8	4-Chloroaniline	23000	J
87-68-3	Hexachlorobutadiene	25000	U
105-60-2	Caprolactam	25000	U
59-50-7	4-Chloro-3-methylphenol	25000	U
91-57-6	2-Methylnaphthalene	6900	J
77-47-4	Hexachlorocyclopentadiene	25000	U
88-06-2	2,4,6-Trichlorophenol	37000	
95-95-4	2,4,5-Trichlorophenol	62000	U
92-52-4	1,1´-Biphenyl	210000	E
91-58-7	2-Chloronaphthalene	25000	U
88-74-4	2-Nitroaniline	62000	U
131-11-3	Dimethylphthalate	4100	J
606-20-2	2,6-Dinitrotoluene	25000	U
208-96-8	Acenaphthylene	25000	U
99-09-2	3-Nitroaniline	62000	U
83-32-9	Acenaphthene	5000	J

1D

EPA SAMPLE NO.

E21M1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Clayton Group Services Contract: 68-W-99-069

Lab Code: CLAYTN Case No.: 30721 SAS No.: _____ SDG No.: E21M0

Matrix: (soil/water) SOIL Lab Sample ID: 02070441-002B

Sample wt/vol: 1 (g/mL) G Lab File ID: I8369.D

Level: (low/med) MED Date Received: 07/17/02

% Moisture: 0 Decanted: (Y/N) N Date Extracted: 07/22/02

Concentrated Extract Volume: 500 (µL) Date Analyzed: 07/24/02

Injection Volume: 2 (µL) Dilution Factor: 5.00

GPC Cleanup: (Y/N) N pH: 0.0 Extraction: (Type) SONC

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	62000	U
100-02-7	4-Nitrophenol	62000	U
132-64-9	Dibenzofuran	9600	J
121-14-2	2,4-Dinitrotoluene	25000	U
84-66-2	Diethylphthalate	25000	U
86-73-7	Fluorene	6800	J
7005-72-3	4-Chlorophenyl-phenylether	25000	U
100-01-6	4-Nitroaniline	62000	U
534-52-1	4,6-Dinitro-2-methylphenol	62000	U
86-30-6	N-Nitrosodiphenylamine (1)	25000	U
101-55-3	4-Bromophenyl-phenylether	25000	U
118-74-1	Hexachlorobenzene	25000	U
1912-24-9	Atrazine	25000	U
87-86-5	Pentachlorophenol	51000	J
85-01-8	Phenanthrene	20000	J
120-12-7	Anthracene	4400	J
86-74-8	Carbazole	3700	J
84-74-2	Di-n-butylphthalate	2600	J
206-44-0	Fluoranthene	3000	J
129-00-0	Pyrene	2700	J
85-68-7	Butylbenzylphthalate	25000	U
91-94-1	3,3'-Dichlorobenzidine	25000	U
56-55-3	Benzo(a)anthracene	25000	U
218-01-9	Chrysene	2100	J
117-81-7	bis(2-Ethylhexyl)phthalate	25000	U
117-84-0	Di-n-octylphthalate	25000	U
205-99-2	Benzo(b)fluoranthene	25000	U
207-08-9	Benzo(k)fluoranthene	25000	U
50-32-8	Benzo(a)pyrene	25000	U
193-39-5	Indeno(1,2,3-cd)pyrene	25000	U
53-70-3	Dibenzo(a,h)anthracene	25000	U
191-24-2	Benzo(g,h,i)perylene	25000	U

(1) Cannot be separated from Diphenylamine

1G

EPA SAMPLE NO.

E21M1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Clayton Group Services Contract: 68-W-99-069

Lab Code: CLAYTN Case No.: 30721 SAS No.: _____ SDG No.: E21M0

Matrix: (soil/water) SOIL Lab Sample ID: 02070441-002B

Sample wt/vol: 1 (g/mL) G Lab File ID: I8369.D

Level: (low/med) MED Date Received: 07/17/02

% Moisture: 0 Decanted: (Y/N) N Date Extracted: 07/22/02

Concentrated Extract Volume: 500 (µl) Date Analyzed: 07/24/02

Injection Volume: 2 (µl) Dilution Factor: 5.00

GPC Cleanup: (Y/N) N pH: 0.0 Extraction: (Type) SONC

Number TICs found: 30 CONCENTRATION UNITS: (µg/L or µg/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q
1.	000079-92-5	Camphene	6.05	19000	NJ
2.	000099-87-6	Benzene, 1-methyl-4-(1-methylet	6.94	29000	NJ
3.	000124-76-5	Bicyclo(2.2.1)heptan-2-ol, 1,7,	8.97	18000	NJ
4.	000106-48-9	Phenol, 4-chloro-	9.29	18000	NJ
5.	000108-70-3	Benzene, 1,3,5-trichloro- (9.36	9.36	280000	NJ
6.	000108-70-3	Benzene, 1,3,5-trichloro- (9.97	9.97	60000	NJ
7.	000634-66-2	Benzene, 1,2,3,4-tetrachloro- (	11.61	210000	NJ
8.		Unknown (11.69)	11.69	15000	J
9.	000634-66-2	Benzene, 1,2,3,4-tetrachloro- (	12.25	900000	NJ
10.	000101-81-5	Benzene, 1,1'-methylenebis-	12.35	410000	NJ
11.	000000-00-0	M-CHLORO-N,N-DIETHYLANILINE	12.74	82000	NJ
12.		Unknown (12.89)	12.89	68000	J
13.	000643-93-6	1,1'-Biphenyl, 3-methyl-	13.30	160000	NJ
14.		Unknown (14.06)	14.06	22000	J
15.		Unknown (14.48)	14.48	16000	J
16.		Unknown (14.55)	14.55	28000	J
17.		Unknown (14.97)	14.97	18000	J
18.	000062-44-2	Phenacetin	15.17	14000	NJ
19.	000120-51-4	Benzyl benzoate	15.81	790000	NJ
20.	000259-79-0	Biphenylene	16.76	88000	NJ
21.	000120-32-1	Phenol, 4-chloro-2-(phenylmethy	16.83	53000	NJ
22.		Unknown (17.01)	17.01	150000	J
23.		Unknown (17.15)	17.15	400000	J
24.		Unknown (17.49)	17.49	1000000	J
25.	010544-50-0	Sulfur, mol. (S8)	17.76	3500000	NJ
26.	025429-29-2	1,1'-Biphenyl, pentachloro-	18.16	50000	NJ
27.	000072-54-8	p,p'-DDD	19.34	17000	NJ
28.	000115-86-6	Phosphoric acid, triphenyl este	20.00	160000	NJ
29.		Unknown (21.37)	21.37	35000	J
30.		Unknown (21.44)	21.44	33000	J

1C

EPA SAMPLE NO.

E21M1DL

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Clayton Group Services Contract: 68-W-99-069

Lab Code: CLAYTN Case No.: 30721 SAS No.: _____ SDG No.: E21M0

Matrix: (soil/water) SOIL Lab Sample ID: 02070441-002B

Sample wt/vol: 1 (g/mL) G Lab File ID: I8375.D

Level: (low/med) MED Date Received: 07/17/02

% Moisture: 0 Decanted: (Y/N) N Date Extracted: 07/22/02

Concentrated Extract Volume: 500 (µL) Date Analyzed: 07/24/02

Injection Volume: 2 (µL) Dilution Factor: 10.00

GPC Cleanup: (Y/N) N pH: 0.0 Extraction: (Type) SONC

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/KG	Q
100-52-7	Benzaldehyde	50000	U
108-95-2	Phenol	66000	D
111-44-4	bis(2-Chloroethyl)ether	50000	U
95-57-8	2-Chlorophenol	50000	U
95-48-7	2-Methylphenol	50000	U
108-60-1	2,2´-oxybis(1-Chloropropane)	50000	U
98-86-2	Acetophenone	5400	DJ
106-44-5	4-Methylphenol	50000	U
621-64-7	N-Nitroso-di-n-propylamine	50000	U
67-72-1	Hexachloroethane	50000	U
98-95-3	Nitrobenzene	50000	U
78-59-1	Isophorone	50000	U
88-75-5	2-Nitrophenol	50000	U
105-67-9	2,4-Dimethylphenol	50000	U
111-91-1	bis(2-Chloroethoxy)methane	50000	U
120-83-2	2,4-Dichlorophenol	53000	D
91-20-3	Naphthalene	150000	D
106-47-8	4-Chloroaniline	21000	DJ
87-68-3	Hexachlorobutadiene	50000	U
105-60-2	Caprolactam	50000	U
59-50-7	4-Chloro-3-methylphenol	50000	U
91-57-6	2-Methylnaphthalene	6400	DJ
77-47-4	Hexachlorocyclopentadiene	50000	U
88-06-2	2,4,6-Trichlorophenol	33000	DJ
95-95-4	2,4,5-Trichlorophenol	120000	U
92-52-4	1,1´-Biphenyl	210000	D
91-58-7	2-Chloronaphthalene	50000	U
88-74-4	2-Nitroaniline	120000	U
131-11-3	Dimethylphthalate	4100	DJ
606-20-2	2,6-Dinitrotoluene	50000	U
208-96-8	Acenaphthylene	50000	U
99-09-2	3-Nitroaniline	120000	U
83-32-9	Acenaphthene	5100	DJ

1D

EPA SAMPLE NO.

E21M1DL

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Clayton Group Services Contract: 68-W-99-069

Lab Code: CLAYTN Case No.: 30721 SAS No.: _____ SDG No.: E21M0

Matrix: (soil/water) SOIL Lab Sample ID: 02070441-002B

Sample wt/vol: 1 (g/mL) G Lab File ID: I8375.D

Level: (low/med) MED Date Received: 07/17/02

% Moisture: 0 Decanted: (Y/N) N Date Extracted: 07/22/02

Concentrated Extract Volume: 500 (µL) Date Analyzed: 07/24/02

Injection Volume: 2 (µL) Dilution Factor: 10.00

GPC Cleanup: (Y/N) N pH: 0.0 Extraction: (Type) SONC

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	120000	U
100-02-7	4-Nitrophenol	120000	U
132-64-9	Dibenzofuran	11000	DJ
121-14-2	2,4-Dinitrotoluene	50000	U
84-66-2	Diethylphthalate	50000	U
86-73-7	Fluorene	6600	DJ
7005-72-3	4-Chlorophenyl-phenylether	50000	U
100-01-6	4-Nitroaniline	120000	U
534-52-1	4,6-Dinitro-2-methylphenol	120000	U
86-30-6	N-Nitrosodiphenylamine (1)	50000	U
101-55-3	4-Bromophenyl-phenylether	50000	U
118-74-1	Hexachlorobenzene	50000	U
1912-24-9	Atrazine	50000	U
87-86-5	Pentachlorophenol	120000	U
85-01-8	Phenanthrene	19000	DJ
120-12-7	Anthracene	4000	DJ
86-74-8	Carbazole	3200	DJ
84-74-2	Di-n-butylphthalate	50000	U
206-44-0	Fluoranthene	3000	DJ
129-00-0	Pyrene	2600	DJ
85-68-7	Butylbenzylphthalate	50000	U
91-94-1	3,3´-Dichlorobenzidine	50000	U
56-55-3	Benzo(a)anthracene	50000	U
218-01-9	Chrysene	50000	U
117-81-7	bis(2-Ethylhexyl)phthalate	50000	U
117-84-0	Di-n-octylphthalate	50000	U
205-99-2	Benzo(b)fluoranthene	50000	U
207-08-9	Benzo(k)fluoranthene	50000	U
50-32-8	Benzo(a)pyrene	50000	U
193-39-5	Indeno(1,2,3-cd)pyrene	50000	U
53-70-3	Dibenzo(a,h)anthracene	50000	U
191-24-2	Benzo(g,h,i)perylene	50000	U

(1) Cannot be separated from Diphenylamine

1G

EPA SAMPLE NO.

E21M1DL

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Clayton Group Services Contract: 68-W-99-069

Lab Code: CLAYTN Case No.: 30721 SAS No.: _____ SDG No.: E21M0

Matrix: (soil/water) SOIL Lab Sample ID: 02070441-002B

Sample wt/vol: 1 (g/mL) G Lab File ID: I8375.D

Level: (low/med) MED Date Received: 07/17/02

% Moisture: 0 Decanted: (Y/N) N Date Extracted: 07/22/02

Concentrated Extract Volume: 500 (µl) Date Analyzed: 07/24/02

Injection Volume: 2 (µl) Dilution Factor: 10.00

GPC Cleanup: (Y/N) N pH: 0.0 Extraction: (Type) SONC

Number TICs found: 26 CONCENTRATION UNITS: (µg/L or µg/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q
1.	029548-02-5	1,3,6-Heptatriene, 2,5,5-trimet	6.05	27000	NJ
2.	000527-84-4	Benzene, 1-methyl-2-(1-methylet	6.94	39000	NJ
3.		Unknown (8.99)	8.99	17000	J
4.	000106-48-9	Phenol, 4-chloro-	9.29	17000	NJ
5.	000087-61-6	Benzene, 1,2,3-trichloro-	9.97	58000	NJ
6.	000634-66-2	Benzene, 1,2,3,4-tetrachloro-	11.61	81000	NJ
7.	000634-90-2	Benzene, 1,2,3,5-tetrachloro-	12.23	320000	NJ
8.	000101-81-5	Benzene, 1,1'-methylenebis-	12.35	150000	NJ
9.	000000-00-0	M-CHLORO-N,N-DIETHYLANILINE	12.74	32000	NJ
10.		Unknown (12.89)	12.89	45000	J
11.	000644-08-6	1,1'-Biphenyl, 4-methyl-	13.30	97000	NJ
12.		Unknown (14.55)	14.55	18000	J
13.		Unknown (14.97)	14.97	25000	J
14.	000062-44-2	Phenacetin	15.17	17000	NJ
15.	000120-51-4	Benzyl benzoate	15.80	950000	NJ
16.	010463-10-2	Benzene, pentachloroethoxy-	16.10	11000	NJ
17.		Unknown (17)	17.00	16000	J
18.		Unknown (17.13)	17.13	280000	J
19.	000090-47-1	9H-Xanthen-9-one	17.47	74000	NJ
20.		Unknown (17.54)	17.54	10000	J
21.	025429-29-2	1,1'-Biphenyl, pentachloro-	19.26	14000	NJ
22.	000072-54-8	p,p'-DDD	19.34	17000	NJ
23.	000115-86-6	Phosphoric acid, triphenyl este	20.00	150000	NJ
24.		Unknown (20.93)	20.93	22000	J
25.		Unknown (21.37)	21.37	36000	J
26.		Unknown (21.44)	21.44	34000	J

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SBLKS1

Lab Name: Clayton Group Services Contract: 68-W-99-069

Lab Code: CLAYTN Case No.: 30721 SAS No.: _____ SDG No.: E21M0

Matrix: (soil/water) SOIL Lab Sample ID: 02070441-005A

Sample wt/vol: 1 (g/mL) G Lab File ID: I8367.D

Level: (low/med) MED Date Received:

% Moisture: 0 Decanted: (Y/N) N Date Extracted: 07/22/02

Concentrated Extract Volume: 500 (µL) Date Analyzed: 07/24/02

Injection Volume: 2 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 6.4 Extraction: (Type) SONC

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/KG	Q
100-52-7	Benzaldehyde	5000	U
108-95-2	Phenol	5000	U
111-44-4	bis(2-Chloroethyl)ether	5000	U
95-57-8	2-Chlorophenol	5000	U
95-48-7	2-Methylphenol	5000	U
108-60-1	2,2´-oxybis(1-Chloropropane)	5000	U
98-86-2	Acetophenone	5000	U
106-44-5	4-Methylphenol	5000	U
621-64-7	N-Nitroso-di-n-propylamine	5000	U
67-72-1	Hexachloroethane	5000	U
98-95-3	Nitrobenzene	5000	U
78-59-1	Isophorone	5000	U
88-75-5	2-Nitrophenol	5000	U
105-67-9	2,4-Dimethylphenol	5000	U
111-91-1	bis(2-Chloroethoxy)methane	5000	U
120-83-2	2,4-Dichlorophenol	5000	U
91-20-3	Naphthalene	5000	U
106-47-8	4-Chloroaniline	5000	U
87-68-3	Hexachlorobutadiene	5000	U
105-60-2	Caprolactam	5000	U
59-50-7	4-Chloro-3-methylphenol	5000	U
91-57-6	2-Methylnaphthalene	5000	U
77-47-4	Hexachlorocyclopentadiene	5000	U
88-06-2	2,4,6-Trichlorophenol	5000	U
95-95-4	2,4,5-Trichlorophenol	12000	U
92-52-4	1,1´-Biphenyl	5000	U
91-58-7	2-Chloronaphthalene	5000	U
88-74-4	2-Nitroaniline	12000	U
131-11-3	Dimethylphthalate	5000	U
606-20-2	2,6-Dinitrotoluene	5000	U
208-96-8	Acenaphthylene	5000	U
99-09-2	3-Nitroaniline	12000	U
83-32-9	Acenaphthene	5000	U

1D

EPA SAMPLE NO.

SBLKS1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Clayton Group Services Contract: 68-W-99-069

Lab Code: CLAYTN Case No.: 30721 SAS No.: _____ SDG No.: E21M0

Matrix: (soil/water) SOIL Lab Sample ID: 02070441-005A

Sample wt/vol: 1 (g/mL) G Lab File ID: I8367.D

Level: (low/med) MED Date Received:

% Moisture: 0 Decanted: (Y/N) N Date Extracted: 07/22/02

Concentrated Extract Volume: 500 (µL) Date Analyzed: 07/24/02

Injection Volume: 2 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 6.4 Extraction: (Type) SONC

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	12000	U
100-02-7	4-Nitrophenol	12000	U
132-64-9	Dibenzofuran	5000	U
121-14-2	2,4-Dinitrotoluene	5000	U
84-66-2	Diethylphthalate	5000	U
86-73-7	Fluorene	5000	U
7005-72-3	4-Chlorophenyl-phenylether	5000	U
100-01-6	4-Nitroaniline	12000	U
534-52-1	4,6-Dinitro-2-methylphenol	12000	U
86-30-6	N-Nitrosodiphenylamine (1)	5000	U
101-55-3	4-Bromophenyl-phenylether	5000	U
118-74-1	Hexachlorobenzene	5000	U
1912-24-9	Atrazine	5000	U
87-86-5	Pentachlorophenol	12000	U
85-01-8	Phenanthrene	5000	U
120-12-7	Anthracene	5000	U
86-74-8	Carbazole	5000	U
84-74-2	Di-n-butylphthalate	5000	U
206-44-0	Fluoranthene	5000	U
129-00-0	Pyrene	5000	U
85-68-7	Butylbenzylphthalate	5000	U
91-94-1	3,3´-Dichlorobenzidine	5000	U
56-55-3	Benzo(a)anthracene	5000	U
218-01-9	Chrysene	5000	U
117-81-7	bis(2-Ethylhexyl)phthalate	5000	U
117-84-0	Di-n-octylphthalate	5000	U
205-99-2	Benzo(b)fluoranthene	5000	U
207-08-9	Benzo(k)fluoranthene	5000	U
50-32-8	Benzo(a)pyrene	5000	U
193-39-5	Indeno(1,2,3-cd)pyrene	5000	U
53-70-3	Dibenzo(a,h)anthracene	5000	U
191-24-2	Benzo(g,h,i)perylene	5000	U

(1) Cannot be separated from Diphenylamine

1G

EPA SAMPLE NO.

SBLKS1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Clayton Group Services Contract: 68-W-99-069

Lab Code: CLAYTN Case No.: 30721 SAS No.: _____ SDG No.: E21M0

Matrix: (soil/water) SOIL Lab Sample ID: 02070441-005A

Sample wt/vol: 1 (g/mL) G Lab File ID: I8367.D

Level: (low/med) MED Date Received:

% Moisture: 0 Decanted: (Y/N) N Date Extracted: 07/22/02

Concentrated Extract Volume: 500 (µl) Date Analyzed: 07/24/02

Injection Volume: 2 (µl) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 6.4 Extraction: (Type) SONC

Number TICs found: 0 CONCENTRATION UNITS: (µg/L or µg/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q

2E

WATER PESTICIDE SURROGATE RECOVERY

Lab Name: Clayton Group Services Contract: 68-W-99-069

Lab Code: CLAYTN Case No.: 30721 SAS No.: _____ SDG No.: E21M0

GC Column(1): DB5-MS ID: 0.53 (mm) GC Column(2): DB-608 ID: 0.53 (mm)

	EPA SAMPLE NO.	TCX 1 %REC #	TCX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #	Other (1)	Other (2)	TOT OUT	
01	PIBLK01	95	95	100	100			0	
02	PIBLK04	115	100	110	105			0	
03	PIBLK05	95	100	80	85			0	✓
04	PIBLK06	95	115	95	100			0	✓
05	PIBLK07	90	100	65	105			0	✓
06	PIBLK08	100	100	90	90			0	✓
07	PIBLK09	100	100	90	95			0	✓

QC Limit

TCX = Tetrachloro-m-xylene (30-150)

DCB = Decachlorobiphenyl (30-150)

Column to be used to flag recovery values

* Values outside of QC limits

D Surrogate diluted out

2F

SOIL PESTICIDE SURROGATE RECOVERY

Lab Name: Clayton Group Services Contract: 68-W-99-069

Lab Code: CLAYTN Case No.: 30721 SAS No.: _____ SDG No.: E21M0

GC Column(1): DB5-MS ID: 0.53 (mm) GC Column(2): DB-608 ID: 0.53 (mm)

	EPA SAMPLE NO.	TCX 1 %REC #	TCX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #	Other (1)	Other (2)	TOT OUT
01	PBLK1S	63	80	80	85			0
02	E21M0DL	0 D	0 D	8500 D	284615 D			0
03	E21M0MS	0 D	0 D	10250 D	484615 D			0
04	E21M0MSD	0 D	0 D	6500 D	315385 D			0
05	E21M0	0 D	0 D	6000 D	261538 D			0
06	E21M1	105	2769 D	825 D	15385 D			0
07	E21M1DL	185 D	10769 D	575 D	18462 D			0

		QC Limit
TCX	= Tetrachloro-m-xylene	(30-150)
DCB	= Decachlorobiphenyl	(30-150)

Column to be used to flag recovery values

* Values outside of QC limits

D Surrogate diluted out

3F

SOIL PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Clayton Group Services Contract: 68-W-99-069

Lab Code: CLAYTN Case No.: 30721 SAS No.: _____ SDG No.: E21M0

Matrix Spike - EPA Sample No.: E21M0

COMPOUND	SPIKE ADDED (µg/Kg)	SAMPLE CONCENTRATION (µg/Kg)	MS CONCENTRATION (µg/Kg)	MS % REC #	QC. LIMITS REC.
gamma-BHC (Lindane)	500	0	0	0D	46-127
Heptachlor	500	14000	21000	1400D	35-130
Aldrin	500	0	0	0D	34-132
Dieldrin	1000	0	0	0D	31-134
Endrin	1000	0	0	0D	42-139
4,4`-DDT	1000	0	0	0D	23-134

COMPOUND	SPIKE ADDED (µg/Kg)	MSD CONCENTRATION (µg/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
gamma-BHC (Lindane)	500	0	0D	0	50	46-127
Heptachlor	500	22000	1600D	13	31	35-130
Aldrin	500	0	0D	0	43	34-132
Dieldrin	1000	0	0D	0	38	31-134
Endrin	1000	0	0D	0	45	42-139
4,4`-DDT	1000	0	0D	0	50	23-134

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 6 outside limits

Spike Recovery: 0 out of 12 outside limits

COMMENTS: _____

4C

EPA SAMPLE NO.

PBLK1S

Lab Name: Clayton Group Services Contract: 68-W-99-069

Lab Code: CLAYTN Case No.: 30721 SAS No.:_____ SDG No.: E21M0

Lab Sample ID: 02070441-006A Lab File ID: pes061.rst

Matrix: (soil/water) S Extraction: (Type) SONC

Sulfur Cleanup: (Y/N) N Date Extracted: 07/22/02

Date Analyzed (1): 07/23/02 Date Analyzed (2): 07/23/02

Time Analyzed (1): 09:33 Time Analyzed (2): 09:33

Instrument ID (1): PP_HP4D Instrument ID (2): PP_HP4D

GC Column (1): DB5-MS ID: 0.5 (mm) GC Column (2): DB-608 ID: 0.5 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
1	E21M0DL	02070441-001C	07/23/02	07/23/02
2	E21M0MS	02070441-001H	07/23/02	07/23/02
3	E21M0MSD	02070441-001I	07/23/02	07/23/02
4	E21M0	02070441-001C	07/23/02	07/23/02
5	E21M1	02070441-002C	07/25/02	07/25/02
6	E21M1DL	02070441-002C	07/25/02	07/25/02

COMMENTS: _____

_____

1E

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E21M0

Lab Name: Clayton Group Services Contract: 68-W-99-069

Lab Code: CLAYTN Case No.: 30721 SAS No.: _____ SDG No.: E21M0

Matrix: (soil/water SOIL Lab Sample ID: 02070441-001C

Sample wt/vol: 1 (g/mL) G Lab File ID: pes068.rst

% Moisture: Decanted: (Y/N) N Date Received: 07/17/02

Extraction: (Type) SONC Date Extracted: 07/22/02

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 07/23/02

Injection Volume: 1 (uL) Dilution Factor 10.00

GPC Cleanup: (Y/N) N pH: 7.6 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/KUG/KG	Q
319-84-6	alpha-BHC	2100	P
319-85-7	beta-BHC	510	U
319-86-8	delta-BHC	510	U
58-89-9	gamma-BHC (Lindane)	510	U
76-44-8	Heptachlor	14000	EP
309-00-2	Aldrin	510	U
1024-57-3	Heptachlor epoxide	510	U
959-98-8	Endosulfan I	1400	P
60-57-1	Dieldrin	990	U
72-55-9	4,4`-DDE	990	U
72-20-8	Endrin	990	U
33213-65-9	Endosulfan II	4400	P
72-54-8	4,4`-DDD	6700	P
1031-07-8	Endosulfan sulfate	17000	EP
50-29-3	4,4`-DDT	990	U
72-43-5	Methoxychlor	5100	U
53494-70-5	Endrin ketone	14000	P
7421-93-4	Endrin aldehyde	14000	P
5103-71-9	alpha-Chlordane	510	U
5103-74-2	gamma-Chlordane	510	U
8001-35-2	Toxaphene	51000	U
12674-11-2	Aroclor 1016	9900	U
11104-28-2	Aroclor 1221	20000	U
11141-16-5	Aroclor 1232	9900	U
53469-21-9	Aroclor 1242	970000	PEC
12672-29-6	Aroclor 1248	9900	U
11097-69-1	Aroclor 1254	730000	PEC
11096-82-5	Aroclor 1260	1400000	EC

1E

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E21M0DL

Lab Name: Clayton Group Services Contract: 68-W-99-069

Lab Code: CLAYTN Case No.: 30721 SAS No.: _____ SDG No.: E21M0

Matrix: (soil/water SOIL Lab Sample ID: 02070441-001C

Sample wt/vol: 1 (g/mL) G Lab File ID: pes062.rst

% Moisture: Decanted: (Y/N) N Date Received: 07/17/02

Extraction: (Type) SONC Date Extracted: 07/22/02

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 07/23/02

Injection Volume: 1 (uL) Dilution Factor 100.00

GPC Cleanup: (Y/N) N pH: 7.6 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/KUG/KG	Q
319-84-6	alpha-BHC	4100	DPJ
319-85-7	beta-BHC	5100	U
319-86-8	delta-BHC	5100	U
58-89-9	gamma-BHC (Lindane)	5100	U
76-44-8	Heptachlor	28000	DP
309-00-2	Aldrin	5100	U
1024-57-3	Heptachlor epoxide	5100	U
959-98-8	Endosulfan I	1700	DPJ
60-57-1	Dieldrin	9900	U
72-55-9	4,4`-DDE	9900	U
72-20-8	Endrin	9900	U
33213-65-9	Endosulfan II	4200	DPJ
72-54-8	4,4`-DDD	6400	DPJ
1031-07-8	Endosulfan sulfate	9900	U
50-29-3	4,4`-DDT	9900	U
72-43-5	Methoxychlor	86000	DP
53494-70-5	Endrin ketone	9900	U
7421-93-4	Endrin aldehyde	9900	U
5103-71-9	alpha-Chlordane	5100	U
5103-74-2	gamma-Chlordane	5100	U
8001-35-2	Toxaphene	510000	U
12674-11-2	Aroclor 1016	99000	U
11104-28-2	Aroclor 1221	200000	U
11141-16-5	Aroclor 1232	99000	U
53469-21-9	Aroclor 1242	1600000	DP
12672-29-6	Aroclor 1248	99000	U
11097-69-1	Aroclor 1254	1100000	DP
11096-82-5	Aroclor 1260	1400000	DP

1E

EPA SAMPLE NO.

PESTICIDE ORGANICS ANALYSIS DATA SHEET

E21M0MS

Lab Name: Clayton Group Services Contract: 68-W-99-069

Lab Code: CLAYTN Case No.: 30721 SAS No.: _____ SDG No.: E21M0.

Matrix: (soil/water SOIL Lab Sample ID: 02070441-001H

Sample wt/vol: 1 (g/mL) G Lab File ID: pes066.rst

% Moisture: Decanted: (Y/N) N Date Received: 07/17/02

Extraction: (Type) SONC Date Extracted: 07/22/02

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 07/23/02

Injection Volume: 1 (uL) Dilution Factor 10.00

GPC Cleanup: (Y/N) N pH: 7.6 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/KUG/KG	Q
319-84-6	alpha-BHC	3000	P
319-85-7	beta-BHC	510	U
319-86-8	delta-BHC	510	U
58-89-9	gamma-BHC (Lindane)	510	U
76-44-8	Heptachlor	21000	EP
309-00-2	Aldrin	510	U
1024-57-3	Heptachlor epoxide	100000	E
959-98-8	Endosulfan I	3300	P
60-57-1	Dieldrin	990	U
72-55-9	4,4`-DDE	990	U
72-20-8	Endrin	990	U
33213-65-9	Endosulfan II	19000	EP
72-54-8	4,4`-DDD	30000	EP
1031-07-8	Endosulfan sulfate	38000	EP
50-29-3	4,4`-DDT	990	U
72-43-5	Methoxychlor	5100	U
53494-70-5	Endrin ketone	36000	EP
7421-93-4	Endrin aldehyde	990	U
5103-71-9	alpha-Chlordane	510	U
5103-74-2	gamma-Chlordane	510	U
8001-35-2	Toxaphene	51000	U
12674-11-2	Aroclor 1016	9900	U
11104-28-2	Aroclor 1221	20000	U
11141-16-5	Aroclor 1232	9900	U
53469-21-9	Aroclor 1242	1100000	EP
12672-29-6	Aroclor 1248	9900	U
11097-69-1	Aroclor 1254	950000	EP
11096-82-5	Aroclor 1260	1400000	EP

1E

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E21M0MSD

Lab Name: Clayton Group Services Contract: 68-W-99-069

Lab Code: CLAYTN Case No.: 30721 SAS No.: _____ SDG No.: E21M0

Matrix: (soil/water SOIL Lab Sample ID: 02070441-001I

Sample wt/vol: 1 (g/mL) G Lab File ID: pes067.rst

% Moisture: Decanted: (Y/N) N Date Received: 07/17/02

Extraction: (Type) SONC Date Extracted: 07/22/02

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 07/23/02

Injection Volume: 1 (uL) Dilution Factor 10.00

GPC Cleanup: (Y/N) N pH: 7.6 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/KUG/KG	Q
319-84-6	alpha-BHC	510	U
319-85-7	beta-BHC	510	U
319-86-8	delta-BHC	510	U
58-89-9	gamma-BHC (Lindane)	510	U
76-44-8	Heptachlor	22000	EP
309-00-2	Aldrin	510	U
1024-57-3	Heptachlor epoxide	510	U
959-98-8	Endosulfan I	2500	P
60-57-1	Dieldrin	990	U
72-55-9	4,4`-DDE	990	U
72-20-8	Endrin	990	U
33213-65-9	Endosulfan II	6800	P
72-54-8	4,4`-DDD	10000	P
1031-07-8	Endosulfan sulfate	27000	EP
50-29-3	4,4`-DDT	990	U
72-43-5	Methoxychlor	5100	U
53494-70-5	Endrin ketone	22000	EP
7421-93-4	Endrin aldehyde	990	U
5103-71-9	alpha-Chlordane	510	U
5103-74-2	gamma-Chlordane	510	U
8001-35-2	Toxaphene	51000	U
12674-11-2	Aroclor 1016	9900	U
11104-28-2	Aroclor 1221	20000	U
11141-16-5	Aroclor 1232	9900	U
53469-21-9	Aroclor 1242	1200000	EP
12672-29-6	Aroclor 1248	9900	U
11097-69-1	Aroclor 1254	940000	EP
11096-82-5	Aroclor 1260	1300000	EP

1E

EPA SAMPLE NO.

PESTICIDE ORGANICS ANALYSIS DATA SHEET

E21M1

Lab Name: Clayton Group Services Contract: 68-W-99-069

Lab Code: CLAYTN Case No.: 30721 SAS No.: _____ SDG No.: E21M0

Matrix: (soil/water SOIL Lab Sample ID: 02070441-002C

Sample wt/vol: 1 (g/mL) G Lab File ID: pes118.rst

% Moisture: Decanted: (Y/N) N Date Received: 07/17/02

Extraction: (Type) SONC Date Extracted: 07/22/02

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 07/25/02

Injection Volume: 1 (uL) Dilution Factor 5.00

GPC Cleanup: (Y/N) N pH: 0.0 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/KUG/KG	Q
319-84-6	alpha-BHC	260	U
319-85-7	beta-BHC	96	PJ
319-86-8	delta-BHC	260	U
58-89-9	gamma-BHC (Lindane)	260	U
76-44-8	Heptachlor	260	U
309-00-2	Aldrin	260	U
1024-57-3	Heptachlor epoxide	260	U
959-98-8	Endosulfan I	260	U
60-57-1	Dieldrin	500	U
72-55-9	4,4`-DDE	3100	
72-20-8	Endrin	500	U
33213-65-9	Endosulfan II	1000	P
72-54-8	4,4`-DDD	26000	EPC
1031-07-8	Endosulfan sulfate	500	U
50-29-3	4,4`-DDT	500	U
72-43-5	Methoxychlor	3800	P
53494-70-5	Endrin ketone	500	U
7421-93-4	Endrin aldehyde	500	U
5103-71-9	alpha-Chlordane	260	U
5103-74-2	gamma-Chlordane	260	U
8001-35-2	Toxaphene	26000	U
12674-11-2	Aroclor 1016	5000	U
11104-28-2	Aroclor 1221	10000	U
11141-16-5	Aroclor 1232	5000	U
53469-21-9	Aroclor 1242	5000	U
12672-29-6	Aroclor 1248	5000	U
11097-69-1	Aroclor 1254	41000	EPC
11096-82-5	Aroclor 1260	18000	EPC

1E

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E21M1DL

Lab Name: Clayton Group Services Contract: 68-W-99-069

Lab Code: CLAYTN Case No.: 30721 SAS No.: _____ SDG No.: E21M0

Matrix: (soil/water SOIL Lab Sample ID: 02070441-002C

Sample wt/vol: 1 (g/mL) G Lab File ID: pes119.rst

% Moisture: Decanted: (Y/N) N Date Received: 07/17/02

Extraction: (Type) SONC Date Extracted: 07/22/02

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 07/25/02

Injection Volume: 1 (uL) Dilution Factor 50.00

GPC Cleanup: (Y/N) N pH: 0.0 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/KUG/KG	Q
319-84-6	alpha-BHC	2600	U
319-85-7	beta-BHC	2600	U
319-86-8	delta-BHC	2600	U
58-89-9	gamma-BHC (Lindane)	2600	U
76-44-8	Heptachlor	2600	U
309-00-2	Aldrin	2600	U
1024-57-3	Heptachlor epoxide	2600	U
959-98-8	Endosulfan I	2600	U
60-57-1	Dieldrin	5000	U
72-55-9	4,4`-DDE	5000	U
72-20-8	Endrin	5000	U
33213-65-9	Endosulfan II	1200	DPJ
72-54-8	4,4`-DDD	26000	D
1031-07-8	Endosulfan sulfate	5000	U
50-29-3	4,4`-DDT	5000	U
72-43-5	Methoxychlor	26000	U
53494-70-5	Endrin ketone	5000	U
7421-93-4	Endrin aldehyde	5000	U
5103-71-9	alpha-Chlordane	2600	U
5103-74-2	gamma-Chlordane	2600	U
8001-35-2	Toxaphene	260000	U
12674-11-2	Aroclor 1016	50000	U
11104-28-2	Aroclor 1221	100000	U
11141-16-5	Aroclor 1232	50000	U
53469-21-9	Aroclor 1242	50000	U
12672-29-6	Aroclor 1248	50000	U
11097-69-1	Aroclor 1254	50000	DP
11096-82-5	Aroclor 1260	17000	DPJ

1E

EPA SAMPLE NO.

PESTICIDE ORGANICS ANALYSIS DATA SHEET

PBLK1S

Lab Name: Clayton Group Services Contract: 68-W-99-069

Lab Code: CLAYTN Case No.: 30721 SAS No.: _____ SDG No.: E21M0

Matrix: (soil/water SOIL Lab Sample ID: 02070441-006A

Sample wt/vol: 1 (g/mL) G Lab File ID: pes061.rst

% Moisture: Decanted: (Y/N) N Date Received: 07/17/02

Extraction: (Type) SONC Date Extracted: 07/22/02

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 07/23/02

Injection Volume: 1 (uL) Dilution Factor 1.00

GPC Cleanup: (Y/N) N pH: 6.4 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/KUG/KG	Q
319-84-6	alpha-BHC	51	U
319-85-7	beta-BHC	51	U
319-86-8	delta-BHC	51	U
58-89-9	gamma-BHC (Lindane)	51	U
76-44-8	Heptachlor	51	U
309-00-2	Aldrin	51	U
1024-57-3	Heptachlor epoxide	51	U
959-98-8	Endosulfan I	51	U
60-57-1	Dieldrin	99	U
72-55-9	4,4`-DDE	99	U
72-20-8	Endrin	99	U
33213-65-9	Endosulfan II	99	U
72-54-8	4,4`-DDD	99	U
1031-07-8	Endosulfan sulfate	99	U
50-29-3	4,4`-DDT	99	U
72-43-5	Methoxychlor	510	U
53494-70-5	Endrin ketone	99	U
7421-93-4	Endrin aldehyde	99	U
5103-71-9	alpha-Chlordane	51	U
5103-74-2	gamma-Chlordane	51	U
8001-35-2	Toxaphene	5100	U
12674-11-2	Aroclor 1016	990	U
11104-28-2	Aroclor 1221	2000	U
11141-16-5	Aroclor 1232	990	U
53469-21-9	Aroclor 1242	990	U
12672-29-6	Aroclor 1248	990	U
11097-69-1	Aroclor 1254	990	U
11096-82-5	Aroclor 1260	990	U

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V
ESD Central Regional Laboratory
Data Tracking Form for Contract Samples

Sample Delivery Group: E21M0 CERCLIS No: _____

Case No: 30721 Site Name/Location: Sauget Site H&I (IL)

Contractor or EPA Lab: Clayton Data User: Tetra Tech

No. of Samples: 2 Date Sampled or Date Received: 8/01/02

Have Chain-of-Custody records been received? Yes ✓ No ____
Have traffic reports or packing lists been received? Yes ✓ No ____
If no, are traffic report or packing list numbers written on the Chain-of-Custody Record?
Yes ____ No ____
If no, which traffic report or packing list numbers are missing?

_____ _____ _____ _____
_____ _____ _____ _____

Are basic data forms in? Yes X No ____
No of samples claimed: _____ No. of samples received: _____

Received by: Michelle Davis / ESAT Date: 08/01/02

Received by LSSS: Michelle Davis / ESAT Date: 08/01/02

Review started: Aug. 2, 2002 Reviewer Signature: [signature]

Total time spent on review: 14 Date review completed: Aug 5, 2002

Copied by: Ena M. Dixon / ESAT Date: 8-8-02

Mailed to user by: Ena M. Dixon / ESAT Date: 8-8-02

DATA USER:
Please fill in the blanks below and return this form to:
Sylvia Griffin, Data Mgmt. Coordinator, Region V, ML-10C

Data received by: _____ Date: _____

Data review received by: _____ Date: _____

Inorganic Data Complete	[ ] Suitable for Intended Purpose [ ] ✓ if OK
Organic Data Complete	[ ] Suitable for Intended Purpose [ ] ✓ if OK
Dioxin data Complete	[ ] Suitable for Intended Purpose [ ] ✓ if OK
SAS Data Complete	[ ] Suitable for Intended Purpose [ ] ✓ if OK

PROBLEMS: Please indicate reasons why data are not suitable for your uses.

_____
_____

Received by Data Mgmt. Coordinator for Files. Date: _____